

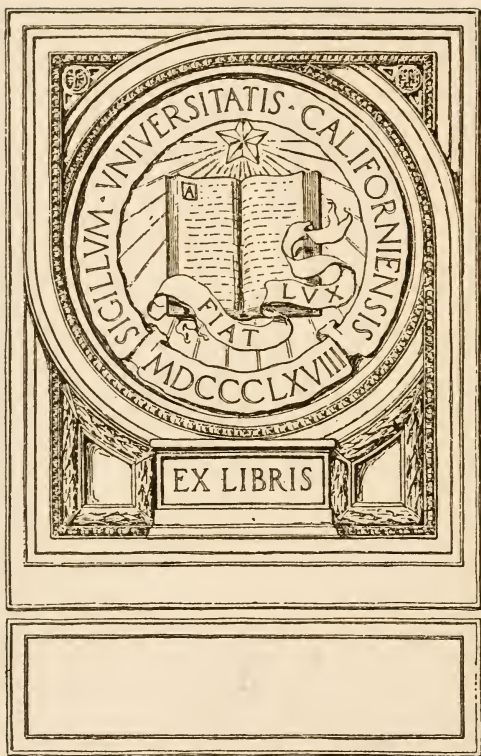
DIET FOR CHILDREN

▲ LOUISE E. HOGAN ▲

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DIET FOR CHILDREN



DIET FOR CHILDREN

A Complete System of Nursery Diet with Numerous
Recipes; Also Many Menus for Young and
Older School Children. A Home and
School Guide for Mothers,
Teachers, Nurses and
Physicians

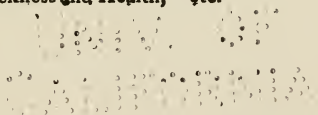
By

LOUISE E. HOGAN

(Mrs. John L. Hogan)

Author of

"How to Feed Children," "A Study of a Child," "The
Introduction of Domestic Science in the Schools of
New York City," U. S. Government Bulletin
No. 56, "Timely Hints for Mothers
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PREFACE

A further study of the subjects taken up in my previous books and the cordial reception given them by the medical profession, the press and the general public, combined with many requests from mothers and nurses for an inexpensive handbook that would show them in still greater detail the working out of the principles advanced in the earlier works, lead me to offer this book in the hope that it may sufficiently meet their needs. It should show them how, under conditions of health, as well as of illness, they may often assist and control a child's mental, physical and moral growth through that care which depends on simple wholesome food, well selected, well prepared and carefully given. It is hoped that this volume will meet the daily requirements of physicians who rarely have the time to direct in detail the management of children's diet. It should also suggest to the mother and nurse just when the physician should be sent for, and when they may themselves aid him in his efforts by the exercise of intelligence and judgment in the selection and preparation of foods indicated for various ages and varying conditions of illness and convalescence.

LOUISE E. HOGAN.

New York, 1916.

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DIET FOR CHILDREN

DIET FOR CHILDREN

WHY MOTHERS, TEACHERS, PHYSICIANS AND NURSES MUST UNDERSTAND FOOD PRINCIPLES AND THEIR PRACTICAL AP- PLICATION

Every one who has the care of children finds out, through experience, that it is absolutely necessary to select carefully the foods that are suitable for their requirements. It is now very generally understood that the old idea of giving children the same food as that of adults is a dangerous one. It is also understood that it has, perhaps, been too frequently the custom among adults to think that anything that is provided for themselves in the way of food might be given with impunity to children, forgetting that the food an adult can receive and assimilate can easily do harm to the tender organs of the child depending so largely for its development on care in this direction. It is not only that the child's proper development may be retarded by carelessness and ignorance at this period of life, but disease is sure to follow such practises. Growth and waste and repair go on in a nearly uniform way the whole year through, but the amount of food necessary for this work is surprisingly small. The great surgeon, Abernethy, said that one-fourth of what we eat keeps us, and the other three-fourths we keep at the peril of our lives. In winter we burn up the surplus food with a limited amount of extra exertion. In summer we get rid of it literally at some

extra risk to health, and, of course, to life. We can not burn it. Our vital furnaces are banked, and we worry the most important working organs with the extra exertion of removing what would better never have been taken into the stomach.

Important Points to Keep in Mind.—We know that a nourishing diet must be supplied for the entire season of youth, beginning with the proper care, during infancy, of the food then required. We also know that, as a child grows, we can add stronger and stronger foods, watching by results until the time comes that it can safely take what is prepared for all. A few of the most important points to keep in mind under all conditions and through all ages are these: First, we must never forget that *through eating the child replaces waste* caused by the constant action and change going on in the organs, and that *we do not want to increase waste*, which causes illness; hence, *we must not overfeed*. Second, *if the child's digestion is normal*, and its life is an active and out-of-door one, we can give it stronger food, and more food than we would if it lived under other conditions, namely, in a warmer climate, or if leading a quiet life. Third, if a child's condition is a little below normal, or if at all times its digestive power is not strong, we must give particular attention to the quantity supplied and the intervals of feeding. Fourth, the diet must be well balanced, which means that we must have the right proportion of the parts given for the building of the body—namely, eggs, milk, meat, etc.,—the right proportion of food which gives energy and keeps it warm; and we must also know how to supply as nearly as possible the same materials that the body is regularly losing; as, for instance, we give heat-forming food in cold weather and liquid in hot weather. Drink constitutes food, as well as what we eat. Rules given should not be considered inflexible, to be followed implicitly, but should be sug-

gestive. Mothers should patiently try to find out the peculiarities and food idiosyncrasies of their children, and accommodate themselves to them precisely as they do in regard to their clothing, etc. Doctor Eustace Smith says: "The successful rearing of an infant by artificial means is not a difficult matter. It requires intelligence and tact; but, above all, it requires watchfulness. If we are vigilant to detect the first signs of discomfort, and at once modify the diet accordingly, we may be sure of preserving a healthy tone in the stomach and warding off all the accidents to which a child less carefully nurtured might possibly succumb."

The Mother Who Understands the Principles of Food Action Finds This Knowledge a Great Aid.—As each class of foods serves its own peculiar purpose in the body, it can readily be seen why it is necessary for a mother to understand, or at least be advised, by some one who knows, something about foods and their action. Many mothers may say that they do not cook the food their children eat; others that they do not care to, or that they do not have the time to. Probably, under certain conditions of life, this may be true and unavoidable. It is not actually necessary, however, for the mother to cook what is given to the child, to have it well-fed; she should know, however, just what to select under certain conditions, and exactly how it should be prepared, if possible. If she can not understand so much as this, she should at least know how food should taste when it is properly cooked, in order to require its proper preparation, when obliged to judge by results alone. A little supervision, judiciously applied, will often prevent difficulties that are likely to occur as a result not only of carelessness on the part of servants, but many times from lack of definite direction. If given a handbook of the necessary character, a careful servant, with a few directive words or marks from her mistress, can carry

an average child safely through a day, or longer, and thus give the mother leisure for many things which, under ordinary conditions, she might be obliged to forego if at all conscientious about what is being given to her child at the nursery table.

In cases of illness, where a mother naturally feels that personal supervision is absolutely necessary, she should watch that temperament is considered and likings consulted; that the food be more daintily prepared; that the child be fed more frequently and less at a time; that more liquid food be given—more water, perhaps, under certain conditions of weakness, the giving of which is of great importance.

Use of Water.—Any one who has watched the average care of children will agree that it is not unusual to deprive infants almost entirely of water because they drink milk; the fact being overlooked that milk, although a liquid out of the body, becomes in the stomach a solid food. This is a common error, and one that causes many conditions of illness, especially constipation.

How Undigested Food Does Harm.—The sum and substance of all the study one can give to the subject is, that if the food is not such as digestion can master at the time, it is useless, and can only do harm, whether for an infant or for an adult. Not being turned to proper account, the blood receives no new supply and is impoverished; the body is not nourished or developed, and inherited tendencies are given an opportunity to force their way to the front. Many diseases to which children are liable—more especially those during the school age, when young people are under the greatest pressure, owing to the craze for mental growth at the expense of physical development—would be likely to disappear under strict supervision of hygiene and diet. This is also true of the various infantile disorders, catarrhal and nervous troubles. The average mother finds more difficulty in feeding

her children satisfactorily than in any other class of home work. This she does in two ways: directly, in which event she is fully aware of her difficulties; or indirectly, when she is only brought to a knowledge of them by results that she recognizes because of her *understanding of the underlying causes of nervous, irritable, peevish and other feverish conditions, which are largely brought about by malnutrition.*

Food Nutrition and Tissue Starvation.—Those who know what tissue starvation is understand the principles of food nutrition. Those who do not fondly, yet delusively, imagine that eating means nourishing. Sometimes it does mean this; but more frequently, with children, it does not. It is not what one eats, but what one digests, that tells the story in ruddy cheeks, pink ears and lips, sound teeth, sound sleep, bright eyes, even tempers, straight limbs and active minds. What one eats and does not digest tells quite another story: namely, pale faces, sleepy eyes, fretful dispositions, flabby flesh, flat chests, sleepless nights, etc.

Want of sufficient exercise diminishes tissue change. This is what causes tissue starvation—improper food and lack of hygienic care, with lack of sufficient exercise. The subject is one of so many sides that one can only take up generalization at first, until *food principles* have become so deeply imbedded in our minds that we can then study how to apply these principles to individual cases, which is *the chief value* of the entire study of foods and nutrition. It is not what we know about it, but what we know and do, that makes a study of value from a *practical* standpoint, and cooking should be considered a branch of practical physiological chemistry, and be duly recognized as such.

Disease Caused by Errors in Diet.—Perhaps the following words of Sir Henry Thompson, the famous English authority on food, are truer than we think. He

says: "I have come to the conclusion that more than half the disease which pertains to the middle and latter half of life is due to avoidable errors in diet; and that more mischief, in the form of actual disease, of impaired vigor and of shortened life, accrues to civilized man from erroneous habits of eating than from habitual use of alcoholic drinks, considerable as I know that evil to be." Herbert Spencer says: "Perhaps nothing will so much hasten the time when body and mind will both be adequately cared for as a diffusion of the belief that the preservation of health is a duty. Few seem conscious that there is such a thing as physical morality. Men's habitual words and acts imply that they are at liberty to treat their bodies as they please. The fact is, all breaches of the law are physical sins. When this is generally seen, then, and perhaps not till then, will the physical training of the young receive all the attention it deserves." Froebel said, fifty years ago, "The child, the boy, the man, indeed, should know no other endeavor but to be at every stage of development wholly what this stage calls for; the earlier stage for human development and cultivation is always the more important. In its place and time each stage is equally important, but of the first (upon which future normal, physical and mental growth depends so largely) there can be no question of its importance; hence, upon mothers rests the responsibility for the first step, for they have the first opportunity. The child's food is a matter of very great importance, not only at the time (for the child may, by its food, be made indolent or active, sluggish or mobile, dull or bright, inert or vigorous), but, indeed, for his entire life. Parents and nurses should ever remember, as underlying every precept in this direction, the general principles that simplicity and frugality in food and in other physical needs during the years of childhood enhance man's power of attaining happiness and vigor—true cre-

ativeness in every respect. If parents would consider that not only much individual and personal happiness, but even much domestic happiness and general prosperity, depend on this, how very differently they would act; but here the foolish mother, there the childish father, is to blame. We see them give their children all kinds of poison, and in every form, coarse and fine." If one may judge from expressions such as these, there would seem to be a reproach cast on those who are responsible for the proper care of children. Let us see to it, then, as mothers and caretakers of children, that it is not resting at our doors.

EXPLANATORY LISTS OF THE VARIOUS CLASSES OF NURSERY FOODS

Proteids.—These foods, when eaten and digested, are tissue-builders, and repair waste. More proteid foods are needed in disease than in health, as they are more easily digested than vegetable foods.

Milk	Partridges	Mutton
Eggs	Gelatin	Chicken
Raw oysters	Beef	Squabs
Lamb	Turkey	Fish
Veal	Pheasant	

Milk is a complete food in early childhood when growth is active, consisting of—

Proteids.....	Caseine or cheese
Carbohydrates	Sugar
Salts	Phosphates
Fat	Cream

Eggs also form a complete food, if the shell, which supplies the chick with salts, is taken into consideration: hence, for children, supplement eggs with salt-giving foods.

Carbohydrates (Starches and Sugars)

(Make heat and stimulate energy)

Beans	Peas	Cornmeal
Oatmeal	Graham bread	Wheat bread
Graham flour	Wheat flour	Barley
Oats	Rye	Graham biscuits
Boston crackers	Milk or oyster crackers	Macaroni

NOTE.—The above carbohydrates contain a large percentage of proteids; those that follow do not:

White potatoes	Rice	Sweet potatoes
Arrowroot	Sago	Tapioca
Cakes	Crackers	Sugars
Sweets	Dates	Molasses
Muffins	Bananas	Figs

NOTE.—Professor Atwater says, “The vegetable foods are rich in carbohydrates, like starch and sugar, while the meats have not enough to be worth mentioning. On the other hand, the meats abound in protein and fats, of which the vegetables have little. Beans and oatmeal, however, are rich in protein, while fat pork has very little. Carbohydrates are found in the grape-sugar of fruits, the sugar and starch in vegetables and the seed-giving flours.”

Salt-Giving Foods

Green corn	Spinach	Celery
Green peas	Green string-beans	Tomatoes
Fresh Lima beans	Onions	Brussels sprouts
Stewed fruits	Peaches	Apples
Strawberries	Pears	Cranberries

Hydrocarbons or Fats

Cream	Bacon fat	Olive oil
Butter	Cod-liver oil	Cocoa
Chocolate		

FOODS FORBIDDEN

The following foods are forbidden under all circumstances in the nursery until after second dentition, except where indicated:

Ham	Baked tomatoes
Sausage	Stewed tomatoes, except as directed on page 114.
Pork	Fried tomatoes
Salt fish	Raw tomatoes, except as directed on page 114.
Dried beef	Fried potatoes
Corned beef	Pickled beets
Goose	Carrots
Duck	Pastries
Broiled kidneys	Griddle cakes
Stewed kidneys	Fresh bread
Liver and bacon	Meat pies
Stewed liver	Fruit pies
Gravy from roast or fried meats, except dish gravy. If carefully made from roasts, without grease, according to recipe given in chapter of recipes, it may be used after five years.	Rich cakes
Meat stews as usually made, but they may be given if made as directed on page 104.	Hot biscuit
Raw celery	Muffins, unless made as directed on page 97, when they are permissible for a child of five.
Raw or fried onions	Doughnuts
Radishes	Preserves
Cucumbers	Canned fruits
	Tea
	Coffee
	Liquors of all kinds, unless indicated by a physician.

NURSING AND MOTHER'S FOOD

Ideal Conditions for Nursing.—A large number of infants are deprived unnecessarily of their natural food. As knowledge increases, this will undoubtedly occur less frequently. To nurse a child normally, a mother should be strong and healthy; have an even happy temperament;

be desirous of nursing her infant and able to devote herself to this special duty. She should be willing to regulate her diet, her exercise and her sleep, according to rules laid down by physicians. These may be said to be ideal conditions. Many women, however, who are far from vigorous, may nurse their infants with good result. One point to remember is, that the temperament must be controlled. Detailed affairs in life must not be allowed to hurry anything touching the infant. Periods of rest must be regular, and diet should be such as will keep the body at the highest possible point of normal health.

Exercise for Nursing Mother.—Exercise should be constant and sufficient. It has been shown that a case of convulsions in a child was controlled by the return to a daily walk of a mother who gave up her habitual exercise because of wearing a pair of tight shoes. Her physician discovered, by the results in the child, that she was neglecting her daily exercise, and a close examination of the mother's actions brought forth an unwilling confession that she had not taken her usual walk because of this reason. Had she known the principles underlying food-action, she might have reasoned out for herself that, because of lack of exercise, the milk she was feeding to her infant was becoming too concentrated and needed more water, and she could have given the child a drink of water before nursing it, which would have corrected the evil. This is one instance, only, to show a thinking mother why it is worth while occasionally to understand the principles of things in order that she may help herself, when, under other conditions, she might have to call a physician, or perhaps cause her child to suffer.

Reasons for Not Nursing.—It is of great importance that mothers who are suffering from some chronic disease, or one that their infants may directly inherit, should give up all thought of nursing their children.

Nursing Diet for Mother.—Taking it for granted that a child is being nursed, under whatever condition of life for the mother, the following points are to be remembered: The mother's diet should not include too much meat and solid food; an abundant light diet should be given at first, such as milk gruels, soups, vegetables, bread and butter, and, after the first week, a small amount of meat once a day; increase diet as the exercise increases, using plain but nutritious foods, taking regular meals, and sometimes using, between mealtimes, coffee, hot milk or cocoa.

Use no stimulants.

Malt extracts are useful, and milk taken at night is to be advocated.

Idiosyncrasies are to be looked for, and if certain articles disagree with certain women, and, consequently, with their children, they should be omitted; but they need not be forbidden to all women on that account. Physicians say that an average woman should use a plain mixed diet, with a moderate excess of fluids and proteids over what she is normally accustomed to.

How to Feed an Infant the First Two or Three Days.—If, during the first two or three days of the life of the infant, it is restless and evidently hungry on account of the mother's inability to supply milk, one or two drams of a five-per-cent. milk-sugar solution, made by dissolving milk-sugar in sterilized water, should be given at intervals of two or three hours. If the mother's milk is delayed still longer, it will be necessary to depend on the physician, who should specify exactly what is to be given.

Intervals for Nursing.—Doctor Tweddell says in *How to Take Care of the Baby* that the infant should be put to the breast five or six hours after birth, and then every four hours for the next two days; after that according to the following schedule:

1st & 2d day Every 4 hours	1st & 2nd months Every 2½ hours	3rd, 4th & 5th months Every 3 hours	After 5 months Every 3 hours
4 a. m.	6 a. m.	6 a. m.	6 a. m.
8 a. m.	8:30 a. m.	9 a. m.	9 a. m.
12 p. m.	11 a. m.	12 a. m.	12 p. m.
4 p. m.	1:30 p. m.	3 p. m.	3 p. m.
8 p. m.	4 p. m.	6 p. m.	6 p. m.
	6:30 p. m.	10 p. m.	10 p. m.
	10 p. m.	2 a. m.	
	2 a. m.		

Night Feeding.—Note that night feedings are omitted at five months. The mother may thus have continuous sleep at night. The regularity of proper intervals in the feeding of infants influences greatly the comfort alike of mother and child.

Too frequent nursing renders milk too solid, lessens the water and gives the child colic. Too long intervals makes the milk too watery, and fails to give it its necessary nutrition.

Weight and Nutrition.—Increase of weight is the best evidence as to nutrition. Doctor Edward T. Davis says: "A child may gain, by proper food, from a half ounce to an ounce daily for the first four or five months, and half the amount for the rest of the year. If at any time the child does not gain in weight, and the mother's milk seems insufficient, it would be proper to add to the breast-feedings a properly prepared milk made up according to the formula of a reputable physician. If teething is delayed, it is an evidence of poor feeding." Doctor Tweddell says most mothers expect infants to gain six to eight ounces a week during the first year, and this often leads to overfeeding. During illness children lose weight very rapidly, but when convalescent they often regain their weight equally rapidly, as much as six to

eight ounces a week. Gain in weight is often arrested by trifling disturbances of health.

Growth.—The well-nourished child should grow about eight inches the first year, or nearly three-fourths of an inch every month, and four inches the second year—not quite half an inch a month. An infant should double its weight in five months and treble it in the year. It should be weighed and measured monthly. If it does not increase at the rate of about a pound a month the first year, and about twelve ounces a month the second, in all probability its food will be found at fault.

Weaning.—Under all circumstances, even if a mother is healthy and the milk is good, the child should have been weaned by the end of the first year, often at the seventh to eighth month. It should usually be taking by this time plain cow's milk, with a starchy food of some kind. When a child has six or eight incisor teeth it is supposed to be able to digest starchy food. Some physicians advocate the use of starchy foods much earlier than others; but it depends very largely on the condition of the child and the preparation of the starchy food. All these matters may be regulated by carefully watching the child's development from week to week in weight, general condition, restlessness, etc. It is always preferable to wean the child in cool weather, before or after the hot season, and when it is not cutting teeth. It should never be weaned suddenly,

Method for Substituting Bottle Food.—The food substituted should be given very gradually. Whatever preparation is used should be given first at but one feeding a day, nursing at the other usual hours, until the child shows that there has been no disturbance from this slight change. This may require from two to three days. Taking it for granted that there has been no disturbance during this time with the use of one bottle of pre-

pared milk, it will be safe to introduce another, not at the hour for feeding which is directly after the hour when the first bottle was used, but at an hour dividing the bottle feedings evenly throughout the day by giving one in the morning and one in the evening. Many mothers who have given attention to this subject in a careful way have learned that by giving the first bottle in the evening they themselves can secure the rest they often need, and that the child is quiet throughout the night because it has had a comfortable meal. It is possible absolutely to control the child's condition by milk that is thus given; as it may not always be possible for a woman to regulate her whole day when she is nursing her child, her own tired condition at the end of the day may be the cause of a fitful restless night on the part of the child, the last feeding of the child having been a disturbed one. It is well known to physicians that an emotional mother or an overtired nursing mother will frequently have a crying child at night. This can usually be avoided as soon as supplementary feeding is begun; hence it is always best to begin any change by giving the first bottle at night-time. The milk must have been cared for sufficiently to keep it absolutely sweet throughout the day.

If two bottle feedings a day, replacing two nursings, are found to agree with the child, then three may be used, and so on, until every meal is being given from the bottle.

Changing from Prepared Milk to Plain Cow's Milk.—Should this milk feeding for weaning be prepared according to a physician's prescription, the change must even then be made from the modified milk to plain cow's milk as gradually as the change has been made from nursing to the modified milk; that is, one bottle of modified milk should be replaced with the plain milk, and upon

finding it agreeing, two bottles daily should be used and so on.

Home Preparation of Starch Foods for Infants.—Very careful preparation is necessary. One point to be emphasized in substitute feeding is that an artificial food must always be so well prepared that it may be safely used at any time it may be needed. The first starch foods to be used are usually preparations of barley and oatmeal, selected by or made according to the formulæ of a reputable physician.

Starch foods imperfectly cooked undergo fermentation; hence such formulæ call for long cooking.

For Doctor Rotch's recipe for **Oat Jelly**, to be used in the first year, see page 97.

For **Malted Gruel**, see page 95.

For **Oatmeal Gruel**, see page 93.

For **Oatmeal and Graham Flour Gruel**, see page 94.

For **Barley Gruel**, see page 94.

For **Farina Gruel**, see page 94.

For **Arrowroot Gruel**, see page 95.

Great Care of Milk and Bottles Necessary.—Comparatively few people stop to consider how very quickly dangerous changes take place in milk, and how readily it becomes contaminated. The carelessness so frequently shown by milkmen, maids and nurses plays an important part in infant mortality.

Requirements for Pure Milk.—It is generally conceded, to-day, as the result of much investigation on the part of philanthropists, scientists and physicians, that it is imperative that the cows supplying the milk receive the care required to supply as pure and clean a milk as it is possible to procure; that the milk be properly handled and cared for, and be kept cold; that the cream be separated from the milk if possible by a separator especially adapted for the purpose; that all the ingredients

used in modifying milk be perfectly sterile; and that everything that can possibly touch the food of a child be clean, sweet and wholesome. When we find that this can be depended on wherever a child's food is to be found, we will begin to see the spreading of its influence in a marked degree on the health of the children of not only the poor in large cities, who have now to struggle as best they can against sour milk, heat, dust and tenement life, and all the evils and discomforts that attend the very poor, but on many children in all classes of life who to-day give evidence, from the richest to the poorest, not only of lack of cleanliness, sweetness and wholesomeness in their food, but of great and culpable carelessness.

What Is a Good Food for Baby.—Doctor Jacobi says, "A good food for the baby does not mean one which simply doesn't kill; it is one which permits a child to grow up healthy and strong."

Why Milk Is Pasteurized.—It is not generally known that every year, in the United States alone, many thousands of children die for want of care in the preparation and administration of their food. Every year, however, more attention is being given to purity of milk and to the possibility of keeping it sweet for the length of time required for commercial purposes. It is recognized, however, that infected milk is one of the chief sources of contagion in various diseases; and for this reason many physicians advocate the application of sufficient heat, one hundred and fifty-five degrees Fahrenheit for thirty minutes, which kills those germs which are dangerous to the child without destroying the quality of the milk as a food, which a higher degree of heat would do. This is the most available practical way for preventing contagion and keeping milk sweet under conditions that are not ideal. Should we have the conditions we desire, it might not be necessary to do this, because the inspections of cattle and milk would be so thorough that there would be less possibility of contagion of tuberculosis or other

disease; the care of dairies, farms, etc., would be so rigidly guarded by the inspectors that they could not possibly be infected by excreta and other causes that bring danger to the infant. Again, city laws would be so carefully administered that all venders of milk would be prevented from adding impure water and preservatives to the milk that reaches the child as its food. I mention impure water because, if they added pure water and allowed it to be known, it would save others the trouble of adding it to correct the excess of cheese that is, in all cow's milk, the stumbling-block in an infant's food.

Failing all of these, the application of heat is still the mother's only safeguard when she wants to protect her child from impure or uncertified milk; but she must not overlook the fact that she is adding dangers of another character, which, however, she can meet by consultation with a careful physician, or by studying for herself how to supply what is lost by this process of heating milk, and replacing it with other foods.

Points to Remember.—A few cardinal points to remember in the care of milk for use in the nursery are these: Never leave milk uncovered; keep it in as cool a place as possible; get certified milk wherever it can be had, in place of the ordinary commercial milk; but heat any kind immediately on receipt, if you realize that you can not control the conditions alluded to above.

Apparatus for Heating Milk.—Taking it for granted that, under some circumstances, milk may not be so well cared for as to be free from dangerous bacteria, nor that cows are known by test to be free from tuberculosis, it is advisable to know how to apply heat to milk, if it must be used under such conditions. There are a number of contrivances in the market for this purpose. A temperature must be reached that is sufficiently high to kill those developed bacteria which would be of any harm to the digestion of an infant, and, at the same time, it must be low enough to prevent the changes that are

acknowledged by nearly all physicians to be undesirable in an infant's food—changes that are caused by the temperature formerly advised for destruction of germs existing in milk, namely, two hundred and twelve degrees Fahrenheit. The temperature of one hundred and fifty-five degrees Fahrenheit for thirty minutes, which is advised by Doctor Tweddell, allows the milk to remain practically fresh and uncooked, yet still be sufficiently sterile.* In some cases the higher degree of two hundred and twelve must be used; as, for instance, in cases of journey, where the milk must, for unavoidable reasons, be kept for a period longer than twenty-four hours; but, for ordinary usage, this temperature need not be considered except under physicians' advice. In cases of summer complaint in early infancy, the higher temperature is sometimes desirable, and recommended by physicians.

The degree of one hundred and fifty-five Fahrenheit for thirty minutes may be applied to the entire mixture of ingredients called for under formulæ given by various physicians, including lime-water, which is always changed with a higher temperature.

The various devices offered for the application of an exact degree of heat to milk are well known. The pasteurizer designed by Doctor Rowland Godfrey Freeman,† of New York, who prepared the formulæ used at the famous milk booths, supported for the benefit of children by Nathan Strauss, has been made with a view of carrying out requirements to an exact point without the use of a thermometer or any detail that may be a burden to the caretaker.

Exact directions are given with each of these devices, and any one of them may readily be procured at any drug-store.

* Doctor Charles Gilmore Kerley advises 167 degrees Fahrenheit for thirty minutes, in *Practice of Pediatrics*. Doctor Clifford G. Gurlée advises, in *Infant Feeding*, 140 to 150 degrees for thirty minutes.

† Doctor Freeman advises 140 degrees Fahrenheit for one hour.

By direction of the Secretary of Agriculture of the United States Government a circular has been issued showing how a proper degree of heat may be applied to milk in a very easy manner. This circular may be had free on application to the Department of Agriculture, Washington, D. C. Should it be impossible to secure any apparatus suitable for the purpose, try some means with ordinary kitchen utensils by which the inner vessel holding the milk to be heated may be half an inch from the bottom of the outer vessel holding hot water, and allow the hot water to reach at least half as high as the milk does in the inner vessel. Cook for half an hour in this way, and cool very quickly. Only a fair degree of safety may be thus assured when milk is doubtful, but it is infinitely better than to take chances by not heating at all, when milk is suspected of contamination.

Care of Nipples.—The care of bottles, nipples, etc., is naturally an important part in infants' feeding. Smooth seamless nipples are preferable to those that are seamed, as they are easily cleaned and do not collapse. When cleaned and dried they should be kept in a covered box or dish, or wrapped up in a clean napkin, and just before using one it should be dipped in boiling water. This latter point must not be omitted. The usual plan is to keep them in a tumbler of water containing soda, which is rarely satisfactory. Experience has shown the above plan to be the preferable one. The writer once discovered a supposedly careful monthly nurse not turning the nipples when washing them, and her given reason for not doing so was that she thought it was not really necessary. The child she nursed was made ill by this carelessness, which was a result that might readily have been expected.

Care of Bottles.—Milk-bottles can be thoroughly cleaned by rinsing first with cold water, then washing with hot soapsuds and a bottle-brush that is clean. The brush requires as much care as the bottles, a fact that is sometimes overlooked. Rinse the bottles, both inside

and out, in an abundance of flowing clean water, preferably under the cold-water faucet, and examine each bottle carefully to see that there is no cloudiness or speck of milk remaining. They may then be placed in the rack and set in a moderately hot oven for an hour, when they will be sterile and ready for use. They may also be put over a fire in a boiler filled with cold water, to boil for half an hour, when they should be carefully drained and kept free from dust. Experiment will show that the oven method is preferable, as the bottles are dry and ready to be put away when removed from the oven. Care should be taken to cool the oven slightly by opening the door a few minutes before removing the hot bottles. This will prevent the cracking that might result upon sudden exposure to the colder air of the room.

Care of Unwashed Empty Bottles.—After an infant has been fed, the empty or half-empty bottle of milk should not be allowed to stand for any length of time. It should be emptied directly, or as soon as possible, and be rinsed with cold water. It may then await a convenient time for washing the entire number used that day. A careful nursery-maid will, however, wash and heat the bottles as fast as they are emptied, which is decidedly the best plan. Physicians and fathers know, if no one else does, how frequently the presence of a baby in the house insures the appearance at all times and in all places of half-empty or unclean-looking milk-bottles, which undoubtedly cause much of the illness usually ascribed either to the visitation of Providence or to a supposedly impure supply of milk. Careful observation will convince many that *not one cause alone* is the source of evils met with constantly in infant feeding.

Intervals.—The intervals in substitute feeding must be carefully considered. Doctor Rotch's* table for intervals is as follows:

* Thomas Morgan Rotch, M. D., author of *Pediatrics*, and late Professor of Diseases of Children at Harvard University.

GENERAL RULES FOR SUBSTITUTE FEEDING DURING THE FIRST YEAR

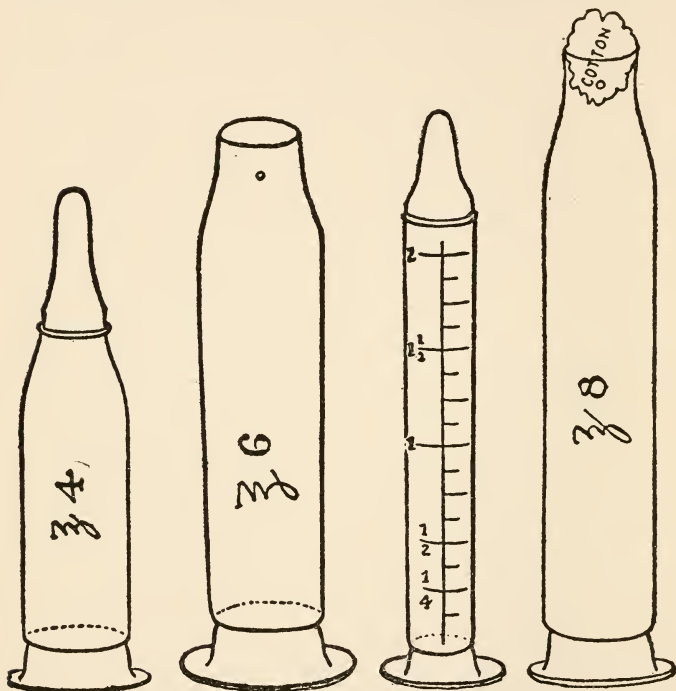
The day feedings are supposed to begin with the 6 a. m. feeding and to end with the 10 p. m. feeding.

Age.	Intervals, Hours.	Number of Feedings in 24 Hours.	Number of Night Feed- ings.	Amount at each Feeding.		Total Amount in 24 Hours.	
				C. C.	OZ.	C. C.	OZ.
1 week	2	10	1	30	1	300	10
2 weeks	2	10	1	45	1½	450	15
4 weeks	2	9	1	75	2½	675	22½
6 weeks	2½	8	1	90	3	720	24
8 weeks	2½	8	0	100	3¼	840	28
3 months	2½	7	0	120	4	840	28
4 months	2½	7	0	135	4½	945	31½
5 months	3	6	0	165	5½	990	33
6 months	3	6	0	175	5¾	1035	34½
7 months	3	6	0	190	6¼	1125	37½
8 months	3	6	0	210	7	1260	42
9 months	3	6	0	210	7	1260	42
10 months	3	5	0	255	8½	1275	42½
11 months	3	5	0	265	8¾	1312	43½
12 months	3	5	0	270	9	1350	45

The above table is given as a safe average to begin with. Doctor Rotch says it is so important to avoid stretching an organ so easily distensible as the stomach that it is wiser to give too little rather than too much food in the early days of an infant's life. An unusually heavy child might require a little more; for instance, a child weighing ten pounds at birth would, according to tables regulated by weight, require one and one-half ounces instead of one ounce at a feeding, if in a healthy condition; but this the attending physician should determine. He advises the use of a set of graduated feeding-tubes during the more important periods of growth, for the purpose of continually impressing upon the mother and nurse what the physician often has the opportunity of telling them only at the beginning of the nursing period—namely, that the error is in giving too much food

rather than too little. This error naturally results when, as is commonly the case, the usual eight-ounce nursing-bottle is used at the very beginning of infantile life.

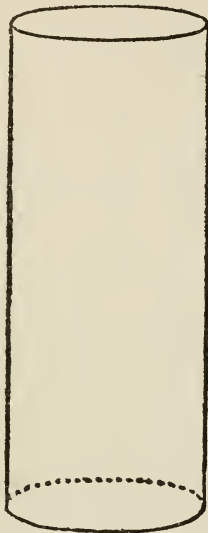
He says he has found that he can easily convince most



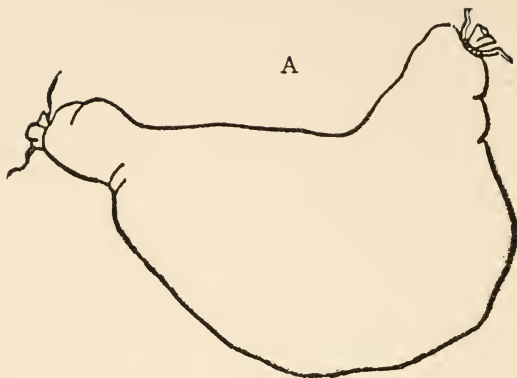
mothers of the mistaken zeal of nurses who advocate giving the young infant large amounts of food, by showing them the size of the infant's stomach at birth (A), and then comparing a small tube (B), which corresponds to the stomach's capacity, with an eight-ounce nursing-bottle.

If my readers still think that they can decide for themselves upon "what to feed the baby," it is to be hoped that they will bear in mind the following facts: that it is at all times advisable (1) to use certified milk or heat other milk to one hundred and fifty-five degrees Fahrenheit for thirty minutes; (2) to dilute milk with boiled

B



water for the first nine or ten months of an infant's life, beginning with at least half water to half milk for an infant one month old; (3) to add cream that is perfectly sweet to each bottle of diluted milk in order to supply the fat lost by dilution; (4) to add milk-sugar and a little lime-water, according to some reputable physician's formula, or that of a milk-laboratory, and (5) to add care-



fully prepared cereal foods very gradually at the proper time, as advised by the family physician.

MENUS

Cereals.—Cereals are a necessary food for growing children. They promote fine muscular development. As starch is the predominant constituent, it is evident that great care must be exercised in cooking the various grains allowable in the nursery, remembering also that long cooking increases digestibility. It is important to know what you want to accomplish when cooking cereals. All starchy foods should be cooked long enough to be put in a condition to be easily acted upon by the digestive juices. The purpose in preparing them is to secure the bursting of the granules and the liberation of the starch by the highest temperature it is possible to reach in order that it may be acted upon by the heat and be partially changed into a substance called dextrine, which is easily digested. An extremely high and prolonged temperature is required for this change, without which cereals are not nutritious, and are likely to cause digestive troubles.

Need of Varied Menus.—One of the greatest difficulties experienced in feeding during nursery and school age is in the provision of sufficiently varied menus. Constant repetition of any food causes indifference, no matter how much it may have been enjoyed at first. The illustrative menus given hereafter are suggestive only, and they may be interchanged to suit the general house supply, vegetables to be used according to season, and care to be given to combinations, as, for instance, the use of but one starch food in a menu, etc. One food of each class is usually sufficient to constitute a satisfactory meal.

Quantities to Allow.—It will be noticed that quantities are mentioned at times when certain foods are to be limited at each meal, leaving the others to be taken according to the appetite of each child. If a child is accustomed to regular simple meals, its appetite may be trusted to regulate amounts. If, on the contrary, it has been fed “a little of everything,” and has been allowed to eat candy, etc., between meals, this point must be carefully considered, and an effort must be made to bring back the child to simple tastes and regular habits, by omitting the foods forbidden for children and by giving no food between meals. The amounts indicated should vary in accordance with the age, weight and condition of the child. It is evident that an active child needs more than one who is passive. The safest rule to follow is to give, as far as possible, a single representative of each class of food at each meal; to give little meat and sugar, and to complete the quantity required for each meal with broths, starchy vegetables, and either green vegetables or fruits. When constructing a menu for a child, keep constantly in view the proportions required of the various classes of foods.

All the dishes indicated in the following menus may be easily prepared by any one understanding the principles of cooking, if care be given to the dainty prepa-

ration of the articles called for, and if scrupulous cleanliness (one of the most important factors in nursery cooking) be observed.

If we want our children to be strong, we must use animal food as an important part of their diet, in the form of milk, eggs and meat soup for younger children, and in that of eggs, fresh meats, etc., for those who are older. In selecting menus, macaroni and spaghetti should be more relied on for variety than is usual after a child is five years old.

Doctor Thompson's Rules for Feeding Young Children, Given in "Practical Dietetics," are concise and comprehensive, as may be seen from the following:

1. Allow time for meals.
2. See that the food is thoroughly masticated.
3. Do not allow nibbling between meals.
4. Do not tempt the child with the sight of rich and indigestible foods.
5. Do not force the child to eat against its will, but examine the mouth, which may be sore from erupting teeth, and examine the food, which may not be properly cooked or flavored. If good food is refused from peevishness merely, remove it, and do not offer it again before the next mealtime.
6. In acute illness, reduce and dilute the food at once.
7. In very hot weather, give about one-fourth or one-third less food, and offer more water.

Doctor Rotch's Suggestions for Feeding a Twelve Months Old Child. (From *How to Feed Children*.)—Between the twelfth and thirteenth months, Doctor Rotch is in the habit of giving the infant five meals during the day. At this time it is well to accustom it to take its food from a spoon, and as soon as possible to omit feeding from the bottle. The five meals should be arranged in the following manner:

"For breakfast, bread and cow's milk, slightly warmed.

"For lunch, equal parts of oat jelly and cow's milk, warmed, with a little salt added, according to the infant's taste.

"This meal of oat jelly should be repeated in the middle of the afternoon.

"In the middle of the day, broth of some kind, either chicken or mutton, carefully prepared so as to be free from fat on its surface, can be given with some bread.

"The fifth meal should be given in the latter part of the afternoon, and should consist of bread and milk.

"In some cases it is impossible to make infants swallow bread for a long period after the usual time of twelve to thirteen months. At times it is not until they are two and one-half to three years old that they can be induced to take bread. In these cases we must feed them according to our judgment of the individual case.

"When the infant is fourteen to fifteen months old, some thoroughly boiled rice can be added to the broth in the middle of the day, and if it digests this well it can also have bread given with this meal.

"When the infant is sixteen months old, it can have a small amount of butter on its bread. When it is seventeen to eighteen months old, it can have a thoroughly baked white potato, mixed with butter and salt, added to its mid-day meal of broth. When it is nineteen to twenty months old, eggs can become part of its diet.

"There are not many fruits which should be given to the infant in its second year. A baked apple can be given at the evening meal when the infant is fourteen to fifteen months old; or, for variety, the apple can be made into a simple sauce, never, however, having the sauce made with much sugar. When peaches are in season, a ripe peach can often be given with benefit, especially if the infant is inclined to be constipated. Other fruits should be avoided, as they are not necessary for the infant's nutrition, and at times produce serious trouble."

Classification of Menus

The following menus are constructed upon this base, suggested by Doctor Rotch, and explanatory notes are introduced where it seems advisable. The hours for the five meals from twelve months may be arranged, as most convenient for the average household, as follows:

Twelve to Thirteen Months

7 a. m. Early breakfast—a breakfast-cupful or a six-ounce bottle of warm milk; a piece of bread.

9:30 a. m. Breakfast proper—two tablespoonfuls of oat jelly with the same quantity of milk, seasoned with a little salt.

12:30 p. m. Dinner—a cupful of chicken broth with stale bread-crumbs; one tablespoonful of gelatin, flavored with orange juice.

3:30 p. m. Repeat meal given at 9:30.

6:30 p. m. Supper—one-day-old bread broken in warm milk (six ounces).

Supper at half past six gives time for the child to have a few minutes' rest before going to sleep at seven. The child should be dressed for the night before receiving this meal, that unnecessary handling on a full stomach may be avoided. Half past six is the time frequently advised for the first meal in the morning, but, by judicious training as to sleep, seven o'clock will be found early enough, and if the habit of sleep is once fixed a child will not wake before this time, thus giving many mothers without nurses the opportunity for sparing their strength a little in the early morning.

First Morning Meal from the Bottle.—It is also of great assistance under some circumstances to give the first meal from the bottle for a longer period than twelve

months, as at this early hour much carelessness may be expected from ordinary servants in the handling of baby's food, and unless there is a reliable nurse the mother must usually rise very much earlier than is necessary for other demands. The plan of having a bottle ready for warming at seven o'clock in the morning will obviate many sources of trouble that are usually met with, and, while not the ideal plan, it is practically much better than to allow servants an opportunity for careless handling of baby's first meal for the day, which may readily change the tenor of that entire day's atmosphere.

A Convenient Daily Routine.—Breakfast at nine-thirty for baby gives the mother time to take her own comfortably, to bathe her child at nine and feed it at half past, after which it should sleep an hour or more, and then be taken out for a while before dinner at twelve-thirty. It may be taken out for an hour again after dinner, from which time it will be likely to sleep until its next meal at half past three. From this time it should be kept awake until it is ready to be put to sleep for the night at seven, after being undressed and fed at half past six. Doctor Samuel Adams, of Washington, says: "A young infant has nothing to do but eat and sleep. As soon as he is fed he will take a nap, and will probably sleep for an hour and a half. After the first year the naps become shorter and less frequent. During the second year a nap in the morning after breakfast, and one in the afternoon about one or two o'clock for an hour or an hour and a half, are usually sufficient, and these naps should be insisted upon for the rest of his mind and body and to enhance his growth and health. When the child reaches the third year he can usually drop the morning nap. The afternoon one should be insisted upon very soon after the child has his noonday meal, in winter as well as in summer." Some physicians advise a night feeding at ten or eleven, to be given until eighteen months.

If so, the food may be given from a bottle without disturbing the child's sleep by keeping to the same hour exactly and gently touching the lips of the child with the tip, lifting the pillow carefully at the same time. A child who is well is usually so sleepy that it will take the milk very readily without opening its eyes. At this time any necessary changes for the night may also be made, to avoid further chance of disturbance. Regularity in this method is certain to bring eventual success. If, during this early period of feeding, great care is given to the little points that appear to many to be trifling at the time, a fixed habit of sound sleep from seven to seven may be formed that will prove one of the greatest blessings conferred on a child by a wise mother.

**Alternating Menu for the Same Period—i. e.,
Twelve to Thirteen Months**

7 a. m. Six-ounce bottle of warm milk, with a piece of crust from French bread or a biscuit.

9:30 a. m. One small cup of fresh sweet milk (heated to one hundred and forty-five degrees Fahrenheit). Two tablespoonfuls of well-cooked oatmeal gruel served with two tablespoonfuls of fresh cream, also heated.

12:30 p. m. One-half pint of mutton broth with stale bread-crumbs. Two tablespoonfuls of junket, made with Fairchild's essence of pepsin.

3:30 p. m. A breakfast-cupful or an eight-ounce bottle of milk and gelatin. Dissolve a teaspoonful of gelatin in a little of the cold milk, and add to the remainder when it is warm, taking care to keep the mixture well covered when dissolving.

6:30 p. m. A breakfast-cupful of warm milk and a piece of bread or a biscuit, or, if the bottle is still used, a six-ounce bottle of warm milk, with bread or biscuit.

Fourteen to Fifteen Months

7 a. m. One slice of bread and eight ounces of milk, given in cup or bottle.

9:30 a. m. One cup of barley jelly and milk, half and half, salted.

12:30 p. m. One slice of bread, one-half pint of chicken broth, with a tablespoonful of well-boiled rice added.

3:30 p. m. Repeat meal given at 9:30.

6:30 p. m. Eight ounces of warm milk and a Graham biscuit.

Alternating Menu for the Same Period—i. e.,
Fourteen to Fifteen Months

7 a. m. Bread and milk (eight ounces).

9:30 a. m. One tablespoonful of gluten porridge served with top milk.

12:30 p. m. One cup of chicken jelly made with milk. A piece of crust of bread.

3:30 p. m. One cup of oat jelly and top milk, half and half, as directed before.

6:30 p. m. Six ounces of milk, the soft part of a baked apple, a biscuit, or a piece of zwieback.

At sixteen months add a little good butter to the bread given. (Rotch.)

After the fifteenth month two to six teaspoonfuls of orange juice may be given, or a baked or stewed apple.

Seventeen to Eighteen Months

7 a. m. One piece of bread and butter and a cup of milk.

9:30 a. m. One cup of oat jelly and top milk, half and half.

12:30 p. m. One cup of chicken broth, bread and butter, and a baked potato mixed with a little butter or cream, and salt. A tablespoonful of juice from a sweet orange.

3:30 p. m. One piece of zwieback and a cup of sweet milk.

6:30 p. m. Eight ounces of milk and bread and butter.

Alternating Menu from Seventeen to Eighteen Months

7 a. m. Graham bread and butter and a cup of warm milk.

9:30 a. m. One tablespoonful of well-cooked wheaten served with a few tablespoonfuls of sweet cream, taken from morning's milk and heated to one hundred and fifty-five degrees Fahrenheit. One piece of breadcrust or zwieback.

12:30 p. m. One-half pint of mutton broth, two tablespoonfuls of boiled rice. Bread and butter.

3:30 p. m. One cup of milk jelly and a biscuit.

6:30 p. m. Two Graham biscuits or bread, if preferred, broken into eight ounces of warm milk.

Nineteen to Twenty Months

7 a. m. A cup of milk and bread and butter.

9:30 a. m. Two tablespoonfuls of wheat porridge with cream, a small glass of milk, bread and butter, one tablespoonful of clarified apple (page 128).

12:30 p. m. A milky, soft-boiled egg (page 105) with stale bread-crumbs, bread and butter, one tablespoonful of boiled rice, one or two tablespoonfuls of fruit gelatin (page 135).

3:30 p. m. A saucer of junket, bread and butter.

6:30 p. m. Two pieces of toasted bread broken into four ounces of hot salted milk; a glass of milk to drink.

Alternating Menu from Nineteen to Twenty Months

7 a. m. Bread, butter and milk.

9:30 a. m. Two tablespoonfuls of breakfast hominy with salt and cream, a glass of milk, bread and butter. A pared ripe peach, if in season, or a tablespoonful of scraped ripe apple.

12:30 p. m. One cup of beef broth, with crumbs of zwieback broken into it, a baked potato, two tablespoonfuls of tapioca (page 126).

3:30 p. m. A saucer of oatmeal jelly (page 97) with a little salt and cream.

6:30 p. m. Bread and milk.

From Twenty to Thirty Months

From twenty to thirty months use the foods indicated so far, varying the menus by interchanging with any similar articles, the recipes for which are given elsewhere.

This is a sufficient diet for this period, and it is worse than folly for mothers to attempt at this early age, as is frequently done, to accustom their children to the use of everything and anything from the general table. There are many persons, again, who will follow a cautious course in nursery feeding to a certain point, and then undo all by a fitful lapse into carelessness. The remarks made in this connection should be emphasized if the infant's digestion and general nutrition are to be considered, and the parents should insist that no other articles of food be employed except such as are similar to those spoken of, according to the taste, judgment and knowledge of cooking that exists in the special household.

Food After Thirty Months

"At this time it will be well to begin to accustom the child's digestive functions to a still greater variety of food. In summer, the more easily digestible vegetables, such as squash, young peas, young beans and asparagus tips, can be given. The variety of fruits can also be increased at this period, but they should be cooked. The principal change which is to be made in the diet to which the infant has been accustomed is a very decided increase in the proportion of the proteid element of its food. This is accomplished by means of giving the child meat. The quantity of meat which should be given toward the end of the third year should be small at first, and should be given at intervals of a day or two. Doctor Wiley says that meat as a regular article of diet for each day is not, as a rule, desirable until the child is five years old, with the exception of a little white chicken meat once or twice a week. The kinds of meat which should be given in this early period of childhood are chicken, mutton-chop, roast beef, and beefsteak. These meats should be cut into small pieces, and a little salt added, according to the child's taste. It is well, during the latter part of the third year and the first part of the fourth year, to give the child an egg on one day and meat on the next if it is decided to give meat before the fifth year, using a little white chicken meat once or twice a week as the alternative to the egg.

"When the child has reached the age of five or six years, we should allow it to have a somewhat more varied diet, but during the whole period of childhood the closest attention should be given to the regulation of the kind and the amount of food to be given, and any deviations from the rules just laid down are to be deprecated.

"It should be particularly noted that meat is not given until after thirty months,—and eggs are withheld until the child is nineteen or twenty months old."—From *How to Feed Children*.

Dinner Menus Allowable After Thirty Months

Beef broth with vermicelli; bran or whole-meal bread, and the best butter obtainable; lightly broiled lamb-chop, scraped and seasoned with salt; spinach boiled tender and mashed through a purée sieve, served plain with cream or in broth; baked potato with salt; orange tapioca for dessert, and a fruit juice made as directed, and used as a drink.

1. Chicken broth with rice; minced broiled tenderloin steak with salt (no butter); boiled rice; brown bread with butter; asparagus tips or stewed celery, with hot cream as sauce; cup custard for dessert, with cocoa to drink.

2. Mutton broth; the white meat of chicken cut into very small pieces; baked potato; spinach; bread and butter; orange float for dessert.

3. Beef tea; stewed squab; boiled or steamed rice; bread and butter; Bermuda onions, stewed very soft in milk; junket with egg for dessert.

4. Milk soup; roast beef rare and minced; boiled rice with dish gravy from roast beef; spinach or stewed celery; bread and butter; cup custard for dessert.

5. Strained vegetable soup; scraped broiled mutton-chop, rejecting all fat; baked potato; apple sauce; bread and butter; junket, made with Fairchild's essence of pepsin, for dessert.

6. Beef broth; boiled or broiled fish; boiled spaghetti with milk; boiled asparagus tips; gelatin with whipped cream for dessert.

A Week's Menus for Children Over Five Years Old

Use amounts according to the age and appetite of the child, and in the proportions given.

SUNDAY

Breakfast.—One ripe apple, pared, quartered and carefully cored. Two tablespoonfuls of well-cooked and well-selected oatmeal, served with sweet cream and a pinch of salt. A cup of weak cocoa. Bread and good butter. A soft-boiled egg.

Dinner.—From twelve to one o'clock. Half a cup of beef broth. Bread and butter. One lamb-chop, lightly broiled and cut in small pieces, or a piece of roast beef or mutton, with dish gravy. One quickly baked potato, broken with a fork, eaten with salt and cream. Two tablespoonfuls of boiled spinach, mashed through a purée sieve. Stewed apples and a lady-finger for dessert.

Supper.—Five to five-thirty o'clock. Milk toast; one-half pint of hot milk seasoned with salt and butter for three or four pieces of toast. A few stewed figs. Cocoa to drink.

MONDAY

Breakfast.—Breakfast hominy and cream. Bread and butter. A sweet orange. A bit of broiled fish.

Dinner.—One-half cup of mutton broth. Broiled, finely chopped steak, one large spoonful, or one lamb-chop, lightly broiled. Boiled rice, as much as wanted. Stewed celery with cream sauce. Gelatin, flavored with chocolate or vanilla, for dessert.

Supper.—Milk biscuit, broken in hot milk. Bread and butter. Stewed fruit.

TUESDAY

Breakfast.—Two tablespoonfuls of cracked wheat and cream. One poached egg, lightly done. Brown bread and butter. A few dates or an apple.

Dinner.—Half a cup of beef broth, made from the chopped steak and celery bits of the day before. A slice of roast beef with dish gravy. Macaroni, boiled in salted water, cream to be added for sauce. Two tablespoonfuls of stewed tomatoes, stewed long enough to be put through an agate or porcelain colander. Orange float for dessert (soft cup custard poured over oranges that have been carefully freed from pith).

Supper.—Bread, butter, milk to drink, and stewed apples, flavored with cinnamon or orange.

WEDNESDAY

Breakfast.—Oatmeal and cream. Dry toast, with cold, not melted, butter. A little stewed potato. A small glass of milk or a cup of cocoa. A bit of broiled fish. A sweet orange.

Dinner.—Half a cup of chicken soup. One broiled lamb-chop. Bread and butter. Stewed onions with cream sauce. One baked sweet potato. (Onions have no sugar, hence sweet potato.) Plain or apple tapioca pudding. As sweet potato has not so much starch as white, tapioca (starch) may be used for dessert.

Supper.—Sweet buns or plain rolls, broken up in hot milk, with a light sprinkling of sugar or salt according to which food is used. A dish of stewed prunes, or a glass of prune juice. A slice of Graham bread and butter.

THURSDAY

Breakfast.—Two tablespoonfuls of hominy with cream (half a cup). One scrambled egg, with bread and butter. One apple. Cup of weak cocoa, three-quarters milk.

Dinner.—One cup of beef broth. Bread and butter. Spaghetti and milk. Broiled sweetbreads. Stewed celery. Small saucer of rice pudding.

Supper.—Bread, butter and good molasses or sirup, carefully selected, with as much milk as is wanted.

FRIDAY

Breakfast.—A saucer of boiled rice, with cream and salt. Bread and butter. A bit of crisp, fat breakfast bacon. Bacon supplies lack of fat in rice. Stewed potatoes. An orange that is sweet.

Dinner.—One cup of beef broth seasoned with celery broth of the day before. Well broiled, boiled or baked fish having white meat. Baked white potato. One tablespoonful of stewed cauliflower with cream as sauce. Cup custard made with one egg and flavored with cinnamon.

Supper.—Zwieback, stewed figs, bread, butter and as much milk as is wanted.

SATURDAY

Breakfast.—Cracked wheat and cream. Cup of cocoa. Soft-boiled egg, lightly boiled. Bread and butter and a few figs or dates, or, for a younger child, an orange that is sweet.

Dinner.—Half a cup of mutton broth with rice added (one tablespoonful). A tablespoonful of the white meat of chicken or a tender wing. Small saucer of apple sauce. Macaroni. Bread and butter. A small cup of junket and

one or two lady-fingers, or a sweet bun one day old, for dessert.

Supper.—Bread, butter and honey, milk, and a small piece of one-day-old Moravian cake, made according to recipe given, or a piece of home-made sponge-cake, gingerbread, or similar simple cake.

Suggestions for Breakfast in Summer for Children from Three to Five

One only of the following articles, with cream and salt : Cracked wheat, rice, tapioca, breakfast hominy, gluten (containing little or no fat).

One only of the following articles : Eggs boiled (covered with boiling water as directed on page 106) ; poached in salted water that does not boil ; scrambled (lightly) ; omelet (eggs not to be separated for beating). For a small omelet use one tablespoonful of hot water to one egg instead of milk, as customary, beat about a dozen times with a fork and cook quickly ; the result will be a deliciously tender omelet. Broiled fish. Broiled bacon. Asparagus tops may be given frequently with any of the above articles.

One only of the following articles : Stewed rhubarb (laxative), orange or lemon jelly (made with gelatin), strawberries (carefully given, noting effect), baked apple, gelatin pudding or calf's-foot jelly, etc.

Summer Dinner Menus from Three to Five Years

1. Beef broth. Broiled fish. Baked potato. Spinach purée. A ripe sweet orange for dessert. Bread and butter.

2. Vegetable omelet made with chopped asparagus tips that have been previously boiled tender ; or, if preferred, a plain omelet and the asparagus served alone, with or

without cream sauce. A small cup of a good digestible cocoa with educator biscuit for dessert.

3. Chop (lamb) broiled. Boiled rice, served with cream and salt. Bread, butter and honey. Glass of milk if desired. In place of honey, fruit juice may be used.

4. Mutton broth with barley. Boiled egg. Asparagus tips with salt, or stewed onion with cream sauce. A cup of junket or a cup of custard. Bread and butter.

5. Broiled beef pulp. Spaghetti with cream sauce, the sauce to be made with good butter, cream or milk, and flour. Four or five large prunes, stewed or simply freshened by soaking overnight in cold water, after washing well, may be given for dessert. Children who will not eat stewed prunes, or who have grown tired of them, will sometimes welcome the above change.

6. Purée of onion with beef broth, served either together or alone. Farina, cooked with salt and served with cream. Strawberry gelatin for dessert, using the clear juice only for flavoring. Bread and butter.

7. Poached eggs served on well-made toast. Cauliflower tops, if tender, or a dish of apple sauce. A saucer of rice pudding flavored with cinnamon. The use of cauliflower and onion should be deferred to the latter part of this period of feeding, and results should be watched very carefully.

Breakfast Combinations for Winter—Designed to Supply Heat

Amounts to vary according to the age of the child; breakfast meats may be omitted for children under seven. Meat at dinner is sufficient at the age of five.

White grapes; oatmeal and cream; boiled eggs; bread and butter; warm milk or cocoa to drink.

Stewed apples; cracked wheat and cream; crust muf-

fins; broiled fat bacon; stewed potatoes; mixed milk and cream to drink.

A ripe apple; cornmeal mush and cream; stewed or broiled chicken; baked potatoes; glass of milk; buttered toast.

Tokay grapes; cream or top milk to drink; broiled mutton-chop; hominy with salt; bread and butter.

Farina and cream; broiled steak or creamed fish; cornmeal muffins, good butter; a sweet orange or ripe apple.

Clarified apples; wheatena; cream; whole-meal bread and butter; broiled squab; boiled rice.

Breakfast Menus for a Child Who Has Reached the Age of Five or Six—Designed Particularly to Supply Food for Second Dentition

1. Whole-meal wheat bread and butter; oatmeal porridge (the whole grain) and cream; stewed potatoes; broiled fish; fruit.

2. Graham muffins and butter; milk; cornmeal mush (the whole grain) and cream; stewed chicken; an orange.

3. Corn bread; porridge made from whole wheat ground in a coffee-mill and cooked four hours (the calcareous deposit needed is found in the outside of the grains), served with cream; a poached egg; warm milk to drink; a raw apple.

4. Hominy; cream; whole-meal muffins, made according to recipe for cream muffins; baked potato; broiled fat bacon; milk; stewed fruit or white or Tokay grapes (no seeds or skins).

Dinner menus for this period should be supplied with the proteids of foods in proper proportions (meat, game, fish, oysters, eggs, milk foods, broths, etc.) and with salt-giving foods (fresh vegetables and fruits), and supper should always include whole-meal bread, stewed fruits, and an abundance of milk.

Sample Dinner Menu for Second Dentition

The following will serve as a sample dinner menu for the second dentition period: a cup of beef broth thickened slightly with oatmeal, or mutton broth with barley; broiled fish, or lamb-chops, with green peas; boiled rice; creamed macaroni or baked potato; whole-meal bread well toasted and buttered when cool, so that the butter will not melt; orange tapioca for dessert; cocoa.

Notice that there are proteids, to form bone for the teeth, in nearly every food prescribed, and that nevertheless the salts and the starches are not omitted. The oatmeal in the soup contains proteids and salts; the fish, phosphates; the whole-meal bread, proteids and carbohydrates; the butter, fat; the orange, salts; the tapioca, starch; and the peas contain proteids and salts.

It must not be forgotten that the condition of a child's second set of teeth depends very largely on the kind of food taken during the years immediately preceding second dentition.

Summer Diet.—At this season of the year, if at no other, should excellence in the preparation of simple foods be the rule. A steak or a chop perfectly broiled, well-baked bread, pure milk, heated or modified as required, carefully selected fruit, vegetables that are well chosen and properly prepared, and the avoidance of sweets and pastry, will prove potent factors in carrying a flock of little ones safely through the hot months of July and August.

Another point to remember at this season is that a child is overfed if it can not digest its food. The approach of warm weather always brings to the thoughtful mother the consciousness of increased care, as this is the season requiring the exercise of much forethought in regard to the diet of the little ones. This is particularly true in

regard to food for older children in the summer-time, a trying period for the one who provides—not so much in finding variety as in being able to make the proper selections from the tempting supply of fresh fruits and vegetables offered, and in discarding the foods that are unsuitable for the hot months. Oatmeal, the reliance of many for breakfast in winter, must now be frequently discarded, as it often proves too heating. It may occasionally be used, however, in the form of oat jelly, for children who are very fond of oatmeal, as some will not eat hominy or wheat. The latter is a perfect summer cereal if well cooked, and efforts should be made to teach children to eat it by preparing it in an appetizing manner, serving it daintily, etc.

Summer Breakfasts.—As eggs may be used but two or three times a week, the breakfast menu in summer, taken altogether, is the first stumbling-block, and one likely to give trouble if not considered carefully. Almost all children, especially those of a nervous temperament or an anemic type, are better for having had a hearty breakfast, and one of sufficient variety to tempt the appetite. If mothers will step out of the beaten track and provide dainty dishes that are not looked for at this hour, they will be surprised to see how quickly their efforts will be appreciated. In season, for children over five, the juice of a few sound ripe strawberries, or half a dozen large cherries (oxhearts), ripe and thoroughly stewed, with dainty slices of well-baked, whole-meal bread and butter, and half a dozen asparagus tips that have been boiled tender in salted water, with a glass of cold or warm beef tea, as preferred, and a spoonful of well-boiled and well-seasoned rice, will make a most satisfying and appetizing variation from the usual menu of eggs, oatmeal, potatoes, etc., and it will be one that a child will be sure to enjoy.

Dainty Service.—Dainty serving is one of the most

important adjuncts in nursery feeding. If the fancy of a child is pleased, he will, in all probability, eat most heartily. On a very hot morning I frequently find that I can invite sufficient appetite on the part of a child not inclined to eat by building engines or toy houses, etc., of small pieces of bread, well buttered with *cold* butter. A little lump of butter should be placed on each piece of bread, not spread on in the usual nursery style, which, to say the least, is not inviting; a very few crisp bits of fat broiled bacon may here and there take the place of butter. This may all be put upon a decorated plate to suggest a story to the child. I have often seen a delicate child, one of the kind who would rather play than eat, take unconsciously a satisfactory meal while he was being entertained with an interesting story about a dear little cherub on his plate who was pictured as eating an apple. I have seen this same child drink glass after glass of milk when it was served in a wine-glass with a stem, whereas he would invariably refuse milk if it was given in a cup or a tumbler, saying he was not hungry. There is a fitness of things that must be considered when feeding children, and at no time is it more necessary than in summer, when the intense heat tries the temper of even adults, who are certainly more resistant than children to the various climatic changes to which we are usually subjected.

A Cool-Looking Dining-Room.—A cool-looking dining-room, shaded to rest the eyes, with inviting napery and pretty table appointments, flowers, etc., is inseparable from comfortable summer life. What could be more inviting to the eye, as well as to the appetite, of a fretful child who has probably been awakened too early by the heat, or who has passed a restless night for the same reason, than the sight of a prettily laid breakfast table—flowers, fruits and some little surprise at his plate to charm away his languor? A dish of cold snow pudding, which contains ingredients that are all beneficial for a

child (gelatin, eggs, fruit juice, etc.), will work like a charm. A glass of milk and a few dainty fingers of bread and butter will complete a satisfactory breakfast for hot weather. It is well to remember in midsummer-time that a light early breakfast is preferable to a heavy later one, if it is supplemented by a glass of milk or of beef tea, with a few crackers or a piece of zwieback, to be given midway between breakfast and dinner. Beef broth or cocoa should be given instead of milk to drink, when cherries or strawberries are taken at breakfast. When cherries are given they must be in perfect condition, and results must be carefully noted. Unless stewed they are frequently not a safe fruit until after second dentition.

Tapioca is of great value in summer diet. It may be used in a variety of ways for any meal in the day, either for dinner dessert or for the main portion of the breakfast or supper meal.

During very hot weather meat should be sparingly used; broths, eggs, milk and macaroni should take its place. Baked potatoes and rice are preferable for starchy foods at this season. Rice possesses no fat, and potatoes are nearly all water.

Simple Dinners.—Avoid at all times, but especially in summer, the use of sweets that are cloying, over- or under-ripe fruit, stale vegetables, and too much meat. Carbohydrates (sugars and starches) should be given in the proportion of four to one of proteids (meat, eggs, etc.) When corn is young and tender, a corn omelet with bread and butter and a glass of milk make a satisfactory dinner for a hot day. Score the grains of corn through the middle, and press out enough pulp to flavor an omelet. Use the recipe given on page 39 for a tender omelet, putting in the vegetable pulp just before folding, as it requires but a few minutes for cooking. Do not allow the omelet to get dry. It should be moist and ten-

der when served. This is delicious when properly cooked and well seasoned. Purée of stewed onions, or a teaspoonful of raw onion juice, or grated onion, or any other vegetable allowed in the nursery, may be used instead of the corn pulp for making these omelets. This plan of only one or two dishes for dinner should not be followed continuously. It is suggested for the occasional relief of the busy mother who at this season of the year finds herself overtaxed, and she must receive her due share of consideration in all these matters, as a child's well-being, not only physically but mentally, depends on the mother's condition. An occasional use of this plan prevents satiety also on the part of the child.

Macaroni or spaghetti, cooked tender first and then simmered in beef broth, cream or milk, is a perfect one-course dinner for a child over five, and one that is usually appreciated. A glass of milk and bread and butter and some stewed fruit should be given with it.

Use of Summer Desserts as Supplementary Foods.—Desserts in summer may frequently be supplementary foods. By this I mean that eggs, rice, tapioca, milk, etc., may be freely used in desserts, and this portion of the meal may contain a large share of the nourishment required for the entire meal. In this form these ingredients are easily digested, and the other part of a menu containing one of these desserts need not be so heavy as in cold weather, thus somewhat relieving digestion at a time when relief is required.

Summer Suppers.—What to give to the children for supper, especially in summer, may seem a trifling matter, yet it is really of the utmost importance. A child's rest at night depends very largely on what it has had to eat at this meal. Two safe rules to follow are, never to give a heavy supper, and never, if possible, to give it later than five or half past five o'clock, until a child is six years old, thus leaving an hour and a half to intervene before it is

time for the nightly sponge, which is so refreshing before bedtime in hot weather, and which, with a well-selected supper, induces sleep in defiance of the heat, however oppressive. I find it is not unusual for mothers to give the evening meal to their little ones as late as half past six or seven o'clock, in some instances as late as half past seven, for their own convenience, and yet they will visit physicians regularly and ask advice as to what should be done to make their children sleep soundly, complaining that they are restless, wakeful, easily disturbed, etc. A child who has had a simple and early supper will be found, if well, to protest against being disturbed, and will want to sleep. It is possible and very desirable to give even a baby its ten or eleven o'clock bottle, which should be its last feeding for the night, without thoroughly awaking it, thus encouraging the habit of continuous sleep from seven to seven, which, once established, is the greatest boon that a tired mother can ask, and one of equal benefit to the child.

Sleeplessness or disturbed sleep in a child either points to a faulty regimen or is the forerunner of disease, and it invariably needs attention and correction. It is one of the safest indications for the mother who is concerned as to the condition of her child.

The old-fashioned *bowl of bread and milk* can not be improved on for a child's supper, if the milk be sweet and the bread well baked and made of good flour. Graham biscuit in place of the bread, with clarified apples made according to the recipe given, is another simple yet desirable summer menu. An occasional dish of rice and milk or a baked potato is frequently suggested, and may be admissible, but it is much wiser in hot weather to reserve rice for breakfast—to be used instead of the more heating cereals—and baked potatoes for dinner. With well-cooked rice or wheat for breakfast, potato, macaroni or spaghetti for dinner, and the occasional use of farina

or tapioca, the matter of starchy foods in summer should be pretty well covered, leaving supper menus to be supplied with dishes that are more simple and more certain of not disturbing a night's rest.

How to Use Fruit.—The use of stewed fruit is to be advocated for all times and all seasons of the year, after two and one-half years; and if fruit at all be given at the evening meal it should be cooked. Fresh fruit should never be given to children after dinner. I have frequently heard this question discussed, and many mothers are in favor of giving it later in the day; but I can not alter my opinion that fresh fruit should not be given to very young children later than at the one o'clock dinner. There is no necessity, at any rate, for doing so, as any child, if treated wisely, will care far more for his bread and milk or Graham biscuit and milk than for all the fruit you may offer him. I frequently find that even the dish of stewed fruit is not appreciated so much for supper-time as for breakfast, at which time it is often eaten with great relish, and is usually the first dish to be called for. Since the discovery of this fact, I have often changed my nursery menus in this direction, omitting the use of any kind of fruit at supper-time unless it is asked for, and giving stewed fruit for breakfast, reserving fresh fruit for dinner menus in summer, when little meat or fat is taken. In this way I find it easier to fit it in with the different milk dishes, which sometimes cause trouble when used with fresh fruit, and thus there is less likelihood of consequent disagreement. At the risk of being tedious, it seems advisable to lay stress on points like these, even if they do appear to be self-evident. Milk should, for instance, form a large portion of the breakfast menu, and with the use of milk it is usually very much better for children under five to have stewed fruit instead of the average so-called ripe fruit that is sold so often in our markets. For this reason chiefly I prefer

using at breakfast-time fruits that have been stewed, as less likely to cause trouble, and fresh fruit that is really ripe for dinner, when milk is usually omitted from the menu. This rule is not an inflexible one, however, and any mother who is sure of the condition of the fruit she buys—that it is perfectly fresh, sound and ripe, not over- or under-ripe—may follow the usually suggested plan of fresh fruits for breakfast and stewed fruits for supper, with puddings, etc., for desserts for dinner. I have, however, found the other plan perfectly practicable, and a great relief in hot weather. It is becoming a frequent practise to give oranges and other fresh fruits shortly before the second feeding of the day, for laxative effect.

Drinking Enough Water.—A copious drink of water about an hour after supper is an important feature in regulating a child's condition, and it should never be neglected, especially in summer. A child four or five years old should drink at least half a pint of water between five o'clock supper and seven o'clock bedtime. The habit of drinking water both morning and evening can be cultivated with a little care, and it is a habit of great importance throughout life in its result on sluggish conditions. That this fact is not fully appreciated is evidenced by the constant cry in the nursery for laxative medicines, which are used and advised far too frequently.

SIMPLE SUPPER DISHES FOR SUMMER AND WINTER

(After two and a half years.)

Milk toast, zwieback, bread and milk, bread and butter (home-made bread, one day old), sugar rusk, Graham biscuit, Graham biscuit sandwiches with good butter (nothing else) between, stewed apples, etc., if desired, with as much sweet milk as the child will drink or use with the above.

Diet for the Approach of Cool Weather.—The approach of cooler weather is the herald for the modifications in diet that are necessary for keeping a child resistant to sudden variations of temperature, for supplying sufficient warmth, and for providing energy to meet the activity induced by the pleasant change from the enervating months of summer. Any observant mother will see at once how quickly her children have been influenced by this change, how much more active they have become, and how appetite has improved; hence the necessity for a fuller diet. Oatmeal may now be used for breakfast, served with cream; this combination, containing fat and starch, supplies heat. A moderate amount of sugar is permissible, and some physicians say advisable, in cool weather if the digestion is good, but it must not be given to children who are in the habit of eating quantities of candy between meals, as in all probability they receive far more sugar than they can digest, and it would be ruinous to give them more. Doctor Wiley urges that it is inadvisable to allow children to acquire a taste for sugar.

No Cake or Candy.—Doctor Rotch says: "The infant should never be given cake or candy, even to taste. I think that it is necessary to state this very decidedly, because it is an erroneous view which is held by most mothers that it can do no harm to give occasionally to an infant in its second year of life, or to a young child, a little candy or a little cake. This may be true so far as the immediate effect these articles may have on the digestion is concerned, but it is of far more importance that the infant should not have its taste perverted from those articles of diet which are best for its nutrition. These new articles appeal more strongly to its sense of taste, and allow it to know that there is something which tastes more agreeable than the food which it is accustomed to have. When an infant has acquired a taste for cake or candy, it will cease to enjoy the food by which its devel-

opment will be best perfected. It is, in fact, kinder to the infant never to allow it to taste cake or candy. When these articles are withheld, it will continue to have a healthy appetite and taste for necessary and proper articles of food."

Use of Sugar on Cereals.—A very satisfactory way of giving sugar on oatmeal to a child who has already acquired the habit is to sprinkle it lightly over each spoonful, using a large salt-shaker. A trial will show that less than a teaspoonful will be required for an entire saucer of porridge, if care is given to the shaking. The least possible shake will usually suffice. This suggestion is intended to help those mothers who perhaps may have unwisely allowed their little ones to eat cereals bountifully sprinkled with sugar. As far as possible, it is safer to keep a child from knowing anything about eating it with food of any kind; but, if the habit has once been formed, try regulating it in this way, and see if the child will not infinitely prefer the sweet gritty taste of the few granules he gets by sprinkling each spoonful immediately before he eats it to eating a sirupy concoction of porridge, milk and a larger quantity that has dissolved. I have seen a child of seven call for lump after lump of sugar for a small cup of cocoa simply because each lump dissolved before she could taste it, and she had no idea whatever of what sweet really meant. I have frequently seen this fact clearly demonstrated. I have also seen a child eat very contentedly a whole dish of oatmeal and cream minus salt or sugar, never missing the sugar, although accustomed to a little, because he was too intent on something else to think of the action required to shake it over each teaspoonful of porridge. By simply watching children as they eat, I have come to the conclusion that it is not necessary to sweeten foods to any great extent to gratify their palates, even if they have acquired the taste. If they must have sugar, let them have it just

as it comes from the grocer—a lump after dinner for dessert; or, on special occasions, as a supplement to an unsatisfactory meal, it may be sprinkled very lightly upon a piece of bread and butter. When sugar is handled carefully, it may be made a very important article of food, as, with a good digestion, it gives heat and energy and is easily assimilated. Efforts should always be made to supply it largely in its natural state, as in fruits, etc.

Cool Morning Breakfasts.—For chilly days cornmeal mush may also be used for breakfast. The use of wheat and hominy need not be abandoned, but oatmeal and cornmeal may now be used for the variations needed in the more liberal and heat-giving dietary required for cooler weather. An occasional baked potato is a pleasant addition to the breakfast menu (supplying starch and salts); or a baked apple served with top milk, or pure sweet cream, if attainable, leaving this menu to be very simply completed with bread and butter and a dish of rice or hominy, the starch element (carbohydrates) necessary to make a perfect combination. The apple is to be peeled before baking. Graham or cornmeal muffins, if thoroughly baked and made thin so that they are nearly all crust, will be enjoyed on cool mornings, and if made in this way they will be far more wholesome than stale bread that has been poorly baked. Too frequently the only virtue, so called, of one-day-old bread is the fact that it *is* stale. When muffins are crisp and dry throughout, they are appetizing and wholesome. They should not be given to a child when hot enough to melt the butter used, but when they are cool enough to put butter on in small pieces they will answer every purpose of good bread, and prove a pleasant variation.

Dinner Menus in Cooler Weather.—For dinner menus in cooler weather a more liberal allowance of starchy foods may be used, such as potatoes, rice, purées of peas and beans, with tapioca and corn starch for des-

serts; instead of the broths, meats may be used every day, and fish occasionally in summer; puddings may now appear for desserts alternately with fruits, not forgetting that salts must be supplied in these menus by giving a green vegetable in connection; as, for instance, rare roast beef (proteid), baked potato (starch and salts—carbohydrate), dish gravy, purée of spinach (salts), with wine jelly for dessert; or, as a contrasting menu, roast lamb (proteid), rice (starch—served with salt and cream to supply fat lacking in rice), and dish gravy, with some wholesome fruit, fresh or stewed, for dessert, thus supplying the necessary salts.

Supper Menus should continue the same as those indicated for summer use, allowing the child to satisfy his appetite by taking as much bread and milk as he desires, or whatever else is given in its place. It can never be insisted on too much that children should have light suppers, and that digestion should have its hardest work to do during the day, before evening comes. If care is taken in this direction, sleep will be sound and rest will be refreshing. There is no more perfect food combination for a child's supper than a bowl of bread and milk; in many nurseries this fact seems to be entirely overlooked. It is easily prepared, contains all the elements necessary for a perfect food, and deserves a prominent place in a child's dietary, provided the milk be pure and the bread wholesome. If by any unavoidable circumstance a child has been deprived of a sufficient amount of nourishment during the day, as sometimes happens when traveling, and a capricious appetite interferes with the enjoyment of the bowl of bread and milk for supper, try a raw egg beaten up very light, with a breakfast-cupful of milk, a little sugar and a pinch of cinnamon added. This, with a piece of bread and butter, will make a full and easily digested meal, and is allowable for the evening meal under special circumstances.

This is a fact to remember when one is away from home with children, and, through disinclination to give trouble, subject to dietetic difficulties that frequently seem insurmountable.

DIET IN ILLNESS

Fonssagrives says: "Nursing is an instinct with women; a little added art would do no harm." Prevention is always better than cure; and early care, with prompt recognition and treatment of symptoms, in conditions not normal, is far better than to allow the development of fevers, rickets, marasmus and other innumerable ills to which children are constantly subjected unnecessarily on account of ignorance and carelessness on the part of those who are responsible. The late Doctor John S. Parry, of Philadelphia, stated that more than one-quarter of all the children between the ages of one month and five years who came under his observation in the Philadelphia Hospital during a period of three years were rachitic. Doctor Gee, of London, says that of the patients under the age of two years who have come under his observation in the London Hospital, one-third were rachitic.

Bruen says: "The digestion of an infant should never be forced; the true index may be found by studying the actions of the bowels. No method of feeding should be tolerated until the passages show that the food is being digested and appropriated."

Process of Digestion.—It is usually supposed that every one interested in dietetics knows that digestion is the process that prepares food for absorption into the blood, and that by assimilation the different elements of food are selected for their work in the body; that the teeth chew the food, and the saliva moistens it, making a beginning by partially digesting the starch in food, and

that the stomach continues the work, followed by the intestines. But a clear understanding of this process is very rare among the laity. Inasmuch as every alimentary organ has its specific work to do, it must be plain that certain conditions call for certain foods; that when digestion is faulty or disordered in any way, advice is necessary as to which class of foods is to be withheld and which is to be given; as, for instance, in typhoid fever there should be no tax on the intestines, and foods must, therefore, be given that are easily absorbed and digested in the stomach, such as peptonized milk or beef, white of egg in water, kumiss, etc.

Mothers frequently err grievously in one direction, no doubt from lack of knowledge, in not seeing the advisability of *total abstinence from food in cases of doubt*, at least until a physician can be called. It is always the safest plan to follow, and it is the only way, sometimes, by which absolute rest can be obtained for the diseased parts.

Preventive Diet.—Fonssagrives says: "The number of cases of disease which can be arrested in children by instituting a preventive diet is almost incredible. In them the digestive functions are in a state of activity proportionate to the need felt by their system for air and growth, and they are invariably involved in any attack of disease. What, then, is more natural and more salutary than to give them rest at the outset of an indisposition; but what is less commonly practiced? This matter of diet has, in recent years, been the subject of very important research, and it is now sufficiently cleared up; but what I do maintain is that it is a question of the very greatest delicacy, which embarrasses educated physicians themselves, and consequently could not be authoritatively solved in the family. . . . One other piece of advice to mothers, not less salutary, is to restrict the treat-

ment of an indisposition to diet alone. It most always suffices for a cure, and if the attack must end in a disease, the ground has been cleared, the physician's action facilitated, and future complications rendered less probable."

Fonssagrives' Rules to Follow in Illness

"Do not give food, even light food, in a condition of fever, unless the physician has recognized its propriety.

"Treat indisposition by diet, and begin it as soon as may be.

"Observe the effects of articles of food, and preserve the motions, to show to the physician.

"Always ask the physician in regard to the interval which should elapse between the food and the medicine prescribed; feed children chiefly at their habitual meal-times, and give them only liquid food after four or five o'clock in the evening.

"It is more important to preserve, as much as possible, the regularity of a child's meals, even when taken with an acute disease. If it is only a broth, it is better to give it at the usual hours of eating. The disease of itself breaks in sufficiently upon established habits, without our intentionally adding to the disorder.

"Note the likes and dislikes of patients in the matter of food, and do not insist upon dishes which disgust them. Nothing is less scientific than the absolute specification of the articles of food to be given. The physician should designate *classes of food*, so that the mother may choose, within their limits, the particular article which the child most desires. It has been said, with reason, that a dish desired is half digested, and it is true of all ages. Yet it must be remarked that those mothers who understand the matter direct their children's alimentary tastes into almost any channel they please, or divert their repug-

nances by artifices known to themselves. They have nothing to learn in this respect.

"Give only food of the very best quality and prepared with fastidious care."

PEPTONIZED FOODS FOR ILLNESS

Peptonized Foods.—To advise definitely what to feed to those who are delicate, convalescent or seriously ill, requires specific knowledge, as special conditions call for specially directed nutrients. Much may be done in this field as a safeguard or as a preventive by the nurse or mother who thoroughly understands the underlying principles of feeding in illness, and one of the first subjects she is called on to give attention to is that of peptonization of foods—making such work an aid to digestion when illness threatens, or a support when illness really exists. As milk is a food generally relied on in illness, it is very important to know how to make it assimilable. The attempts to render milk easy of digestion, or more digestible, by thickening with gruels, gelatine, boiled flour, arrowroot, etc., are expedients which have been tried for a great many years. To make milk a digestible food for the sick, some safe plan must be adopted, some process in which *no mistake can be made*—because of the great risk involved in faulty feeding during illness. The use of peptonizing products is such a process and is greatly relied upon by the medical profession in all kinds of illness.

In the practical application of the peptonizing process it is important to remember that great heat *destroys*, or cold *stops*, the digestive action, so that when the process has gone far enough, the milk should be either immediately brought to the boiling point or put directly on ice. Digestion will continue as long as the milk is kept warm—

at a temperature favorable to the action of the peptonizing principle—until it is completely peptonized.

Degree of Digestibility Can Be Controlled.—One of the peculiar features of the peptonizing process is that the milk may be given just that degree of digestibility that is required under special conditions. It is wholly controlled by the length of time during which it is subjected to heat.

How to Make Whey.—Put one pint of fresh milk into a saucepan and heat it lukewarm (not over one hundred degrees Fahrenheit); then add two (2) teaspoonfuls of Essence of Pepsine and stir just enough to mix. Let it stand until firmly jellied, then beat with a fork until finally divided; strain, and the whey (liquid part) is ready for use. Keep in a bottle near ice.

Junket.—Into a clean saucepan put one-half pint of fresh, cool milk, heat it lukewarm (not over one hundred degrees Fahrenheit); then add one teaspoonful of Essence of Pepsine, Fairchild, or one junket tablet, and stir just enough to mix; divide quickly into small cups or glasses and let stand until firmly jellied, when the junket is ready for use, just as it is, or with sugar; it may be placed on ice and taken cold.

Egg Junket.—Beat to a froth one strictly fresh egg; sweeten with two teaspoonfuls of sugar; then stir in thoroughly one-half pint of fresh cool milk; put this mixture into a clean saucepan and heat it lukewarm and proceed as with plain junket.

Cocoa Junket.—Put an even teaspoonful of any good cocoa and two teaspoonfuls of sugar into a saucepan; scald with two tablespoonfuls of boiling water; rub this paste smooth; then stir in thoroughly one half-pint of fresh, cool milk; heat this mixture lukewarm (not over one hundred degrees Fahrenheit); then add one teaspoonful of Essence, one junket tablet and proceed as with plain junket.

Coffee Junket.—Dissolve two teaspoonfuls of sugar in two tablespoonfuls of clear strong coffee; mix this thoroughly with one-half pint of fresh, cool milk, and proceed as with plain junket.

Hot Peptonized Milk as a Beverage.—Hot peptonized milk is a grateful and nourishing beverage for invalid children and dyspeptics, diabetics and consumptives. In many cases it is most helpful in the morning, taken on rising, or with breakfast, and it is excellent at any time when one suffers from exhaustion with intolerance of solid food. There is nothing better in the way of nourishment to take before retiring than hot peptonized milk, and at the table it is a good substitute for tea or coffee.

Peptonized Milk with Cereals.—Oatmeal, rice, hominy, etc., are more readily digestible when taken with peptonized milk, and its use with the various cereals is especially recommended for young children and children with defective digestion.

Peptonized Milk Gruel.—Mix a half-pint of well-boiled hot gruel with a half-pint of cold fresh milk and strain into a pitcher or jar; add immediately the powder contained in one of the Peptonizing Tubes (Fairchild) and stir until it is dissolved. Put the pitcher or jar in a hot water bath or warm place for five minutes; then pour the mixture into a clean bottle and place on ice; serve hot or cold.

The gruel may be made from arrowroot, wheat flour, barley or oatmeal, etc.; but in each instance the farinaceous material should be boiled with water until the starch granules are thoroughly swollen and broken up.

Liquid, Light, and Convalescent's Diet.—Another frequent source of trouble is met with in the effort to bring about an adequate comprehension of the terms liquid diet, light diet, convalescent diet, etc. Directions are frequently given to mothers and nurses in this general manner. Nurses are supposed to know what these

terms mean, but many mothers need information in this respect. One might think a broiled chop and a baked potato constituted a very light diet, while another would think it should be corn-starch pudding, tea and toast. Referring to this subject, the late Professor Gross, of Philadelphia—to whose utterances the weight of authority has always been accorded—once said: “The diet of the sick-room has slain its thousands and tens of thousands. Broths and slops and jellies and custards and ptisans are usually as disgusting as they are pernicious. Men worn out by disease and injury must have nutritious and concentrated food. The ordinary preparations for the sick are, in general, not only not nutritious, but insipid and flatulent. Animal soups are among the most efficient supporters of the exhausted system, and every medical man should know how to give directions for their preparation. The life of a man is his food. Solid articles are, of course, withheld in acute diseases in their earlier stages; but when the patient begins to convalesce, they are frequently borne with impunity and greatly promote recovery. All animal soups should be made of lean meat, and their nutritious properties, as well as the flavor, may be much increased by the addition of some vegetable substances, as rice or barley.”

Ask Physicians for Definite Directions.—Directions should be specific if they are to be of benefit. Mothers should ask physicians for definite directions, and insist on having them, and then follow them to the letter.

The usual acceptance of the term liquid diet implies meat broths, milk, whether peptonized or not, beef juice, gruels, barley water, white of egg, mulled egg, whey, wine and water, etc., all of which are to be given under the direction of the physician, as it is during fevers and acute stages of disease that they are required. It is a difficult and important matter to determine the kind and quality required during twenty-four hours, the intervals

to be allowed, and the temperature of the liquid foods to be given.

Light diet is the term usually employed to designate the foods to be given during convalescence, and consists of very simple and easily digested foods. Fresh-laid eggs may be used when changing from the broth diet to solid food. They should be cooked in hot water, as directed elsewhere. Fonssagrives gives a method that he asserts to be infallible for making the whites of eggs milky in cooking, which he says is the proof of good cooking and the promise of easy digestion. It is to have a tumbler (or a cup) filled with water brought to the boiling-point, in which the egg is to be placed; withdraw the glass or cup from the heat, and take out the egg when it can be done without scalding the fingers. Eight minutes' immersion in boiling water that has been taken from the source of heat and covered will usually be found to serve the purpose. Something depends on the freshness of the egg.

Light diet consists of everything included in liquid diet, fruit, such as grapes and oranges, boiled or poached eggs, dry and milk toast, all the soups allowed in the nursery, delicate puddings, scraped beef, the tender part of oysters, jellies made with gelatin, either sweet, with fruit flavoring or wine, or not sweet, using salt with meat and chicken broths, etc. The change to light from liquid diet should be very gradually made, adding one new food at a time.

The following rules should always be observed in preparing, cooking and serving food for the sick: "All the utensils employed should be scrupulously clean. Never make a large quantity of one thing at a time. Serve everything in as tempting a form as possible. Put only a small quantity of an article on a dish at a time. Keep milk and other delicacies on ice in warm weather. Never leave food about a sick-room. Never offer beef tea or broth with the smallest particle of fat or grease on it."

Convalescent Diet differs only from the ordinary

diet to which the child is accustomed in its extreme simplicity and the small quantities allowed. One or two foods only should be used at one meal. Bread, fresh eggs, fish, oysters, meat and cooked fruits, and a few of the most easily digested vegetables, are the foods from which to select. Remember that the sudden sight of food is sometimes an appetizer, and that a convalescent will often eat what is brought to him unawares and refuse to eat what he has himself been asked to choose, or deny that he has an appetite when food is mentioned.

Practical Points by Doctor Burnet Concerning Food in Illness.—The following is a summary of practical points for use with children, as suggested by the remarks of R. W. Burnet, M. D.,* concerning foods in illness: Drinking hot water at bedtime and cold or hot in the morning before breakfast for dyspeptic disorders; a teaspoonful of malt added to a cup of milk when keeping up milk diet for growing boys and girls who are anemic; the use of additional cream in food as a laxative; in mucous diarrhea to use farinaceous foods, such as arrow-root, tapioca, sago, with milk, white of egg, to give small quantities of food at short intervals, to keep the patient warm, the food to be neither hot nor cold, to be eaten slowly, a teaspoonful at a time, to use brandy if physician advises, and to use meat juice when farinaceous foods will not do; in kidney troubles, often following scarlet fever, etc., to feed very lightly, to cut down albuminoids under the physician's advice, to use milk as a sole diet for children in this trouble, and for convalescence to give the usual nursery menus minus meat; in scurvy, caused by restricted diet, if fresh vegetables or fruit can not be had, to use lemon juice (purées are a useful form for vegetables in this trouble, and all softer foods of nursery dietaries).

* *Foods and Dietaries.*

Diet for Anemic Children.—Anemia may occur in connection with all diseases. For dietaries for anemic children any of the nursery menus given may be used, with a glass of cocoa or beef tea half-way between meals, and before bed a cup of peptonized or malted milk (a teaspoonful of extract of malt to a cup of milk). Cream added to whey is a useful food for children of consumptive inheritance. They should early have salts of tender meats, vegetables and fruits, a sufficient quantity of milk, open-air life, little study and an abundant and easily assimilated diet. Bronchitis requires a liberal dietary of light nourishing food. Diphtheria requires abundant nourishment. There is danger of overfeeding in typhoid fever; milk should be carefully taken, and it should be peptonized when used. In diarrhea, gelatin and arrow-root, white of egg and water, peptonized milk, etc., are useful. Special dietaries must be given by the physician, as each case must be individualized, and we should be able to select the kind of food required and the form in which to give it, and also to direct how it should be prepared.

Laxative Foods.—Foods that are decidedly laxative and allowable for children are ripe peaches, stewed rhubarb, stewed or dried prunes, figs, dates, oranges, apples, oatmeal porridge, bran mush, Indian meal mush, whole-meal bread, rye and Graham bread, all cereals made of the whole grain, tomatoes, spinach, boiled Spanish onions, etc.

Doctor Thompson says:*

“Gingerbread, especially for children, is sometimes efficacious.

“Grape juice is somewhat laxative.

“Olive oil or cod-liver oil, if taken at bedtime into an empty stomach, is laxative for some persons, especially children.

* *Practical Dietetics*, by W. Gilman Thompson, M.D.

“With many persons having imperfect digestion raw fruits disagree; and, since their laxative properties are not much weakened by being cooked, it is better to eat them in that form.”

Use of Water as a Laxative.—A baby should be offered water six or seven times a day. For older children, it should be remembered that water is needed according to activity and to bodily temperature—the greater the activity the greater the need for water.

A child weighing forty pounds should drink at least twenty ounces of water a day, and hot weather calls for more.

Rules for Cases of Poisoning.—Inasmuch as children are frequently poisoned by eating sweets improperly prepared, or berries, or seeds, or by sucking painted toys, their treatment under such conditions becomes a matter very closely related to dietetics. Jane H. Walker, M. D., says:* “The first and most important thing is to make the child vomit as speedily as possible, . . . to tickle the back of the throat with a feather, and give large drinks of lukewarm water, or of mustard and warm water. A teaspoonful of mustard in a tumbler of warm water is very efficacious. Greasy or soapy water, if it is the readiest obtainable, does perfectly; soapy water has the advantage that if the poisonous substance taken be an acid, it is an excellent antidote. See that the child is repeatedly nauseated, and then give it bland, soothing substances, such as white of egg beaten up, milk, barley water, or oil. These help if the poison has been of an irritating character, such as carbolic acid.

“If there is great depression, stimulants must be given and hot-water bottles applied. The best stimulant is strong hot tea, because it is an antidote to many poisons.

“If there is great tendency to sleep, it must be pre-

* *A Book for Every Woman*, Longmans, Green & Co.

vented at all cost. This tendency generally shows that opium in one of its numerous preparations has been taken, and sleep indulged in at this time will probably be the sleep that knows no waking. When the poisonous substance that has been taken is known, the method of procedure differs with the particular poison."

ANTIDOTES FOR POISONS

Useful Hints for Emergencies

In cases where the other articles to be used as antidotes are not in the house, give two tablespoonfuls of made mustard in a pint of warm water. Also give large draughts of warm milk or water mixed with oil, butter or lard. If possible, give as follows:

For bedbug poison, blue vitriol, corrosive sublimate, lead water, saltpeter, sugar of lead, sulphate of zinc, red precipitate, vermilion,	}	Give milk or white of eggs in large quantities.
For Fowler's solution, white precipitate, arsenic,	}	Give prompt emetic of mustard and salt, tablespoonful of each; follow with sweet oil, butter or milk.
For antimonial wine, tartar emetic,	}	Drink warm water to encourage vomiting. If vomiting does not stop, give a grain of opium in water.
For oil of vitriol, aqua fortis, bicarbonate of potassium, hydrochloric acid, oxalic acid,	}	Magnesia or soap dissolved in water, every two minutes.

For caustic soda, caustic potash, volatile alkali,	}	Drink freely of water with vinegar or lemon juice in it.
For carbolic acid,	}	Give flour and water or glutinous drinks (olive oil in large quanti- ties, then an emetic, is recom- mended by Doctor Walker).
For chloral hydrate, chloroform,	}	Pour cold water over the head and face, with artificial respiration, and galvanic battery.
For carbonate of sodium, copperas, cobalt,	}	Prompt emetics; soap or mucilagi- nous drinks.
For laudanum, morphine, opium (paregoric carminatives),	}	Strong coffee, followed by ground mustard or grease in warm water to produce vomiting. Keep in mo- tion.
For nitrate of silver,	}	Give common salt in water.
For strychnine (rat and beetle paste), tincture of nux vom- ica,	}	Emetic of mustard or sulphate of zinc, aided by warm water.*

Diet for School Children.—Yeo emphasizes the period of school life as one of the most critical and important epochs in the life of children as regards adequate nutrition. He says that at this period there is not only continuous growth and development, but remarkable activity, which demands a complete and liberal dietary. Teachers in boarding-schools are apt to overlook this fact, and parents, as a rule, know little of the necessity for additional care at this time, with the result only too often of the foundation being laid for future disease, or of the undermining of strength that should be held in reserve for later life. Both body and mind are under-

* *American Analyst.*

going rapid development at this time, and the greatest care should be exercised. The food must be abundant, and must contain sufficient proteids, starches, sugars and inorganic salts to meet the constant demand for these constituents of a perfect food. It must be remembered that this is a period when digestion and assimilation are active. It is a frequent custom among mothers of growing boys and girls going to school to jest about their immense appetites, and not only to jest, but actually to limit supplies of certain foods especially needed at this period. The custom of sending children to school on a light breakfast or none at all, with a cold luncheon for the noon meal, is reprehensible to the last degree. Or, if a hot dinner is provided, the habit of rushing home at noon in a limited time to consume eagerly and rapidly the food that should be eaten leisurely and enjoyed, should not be allowed under any circumstances. If school laws are rigid, remember that parental authority should be absolute, and insist on different hours; or, if nothing better can be done, keep the child away for the time required, irrespective of late-marks, etc. Such action, if concerted, would speedily bring authorities to the point of meeting existing needs in this direction. Do not forget that there is a lifetime for study and only part of one during which the physical building-up process can be regulated.

Good Rules to Follow.—To sum up the rules laid down by Yeo, Dukes, Thompson and others, the foods required during this period are as follows: well-made whole-meal bread; as much butter as is desired; an abundant supply of milk all through adolescence; starches and sugars should be freely supplied (giving heat and force); meat twice a day; fish for delicate feeders; green vegetables in abundance, either alone or in vegetable soups (to prevent eczema); suppers should be light, not stimulating; the craving for sweets should be satisfied

with moderation and wisdom in selection; a free use of salads should be made; all cooking should be carefully looked after, and food should be made savory and appetizing; in fact, the rules given by dietists for early life should be carried out through the entire period of childhood to adult life, and, indeed, many of the suggestions may be followed with benefit even then.

Treatment of Feeble School Children.—Doctor Thompson says many children inherit feeble constitutions, such as the scrofulous, rachitic and gouty, which must be combated through the whole period of childhood. He says such children are better at home, where they can be under constant observation and proper dietetic treatment, or country schools can be found for them where such matters are made the subject of special consideration. He speaks of the large number of cases of anemia and chlorosis seen in young girls that he says are directly traceable to malnutrition from faulty diet. This fact may serve to show to some parents why Providence, as they say, has so frequently afflicted their growing daughters with delicate health, which is more frequently their lament than their shame. I think it was Shirley Dare who said that the day will come when many forms of illness will be considered a discredit to those involved. As the knowledge of causes increases there will certainly come a less ready willingness to credit everything to a hitherto much-abused Providence. The patience of physicians in dealing with this class of diseases is a constantly growing marvel.

Inasmuch as Doctor Thompson* has covered the subject of school diet so thoroughly, liberal quotations are made in the interest of our readers.

"Girls take much less exercise than boys, as a rule, and are more apt to become constipated. This difficulty

* *Practical Dietetics*, W. Gilman Thompson, M.D.

may be increased by lack of sufficient fresh vegetables or fruit in their diet, and if prolonged it is enough in itself to cause anemia. The latter (anemia) may also be brought about by insufficient good animal food. It should be the imperative duty of every head master of a school for children to realize the responsibilities of rightly developing the physical constitution of those intrusted to his care, and to make a thorough study of the questions of dietetics involved.

"An important consideration in school diet is to *prevent monotony*, which becomes so common from economic reasons, or more often from carelessness. It is much easier to yield to routine and force of habit, or to leave the matter to the indiscretions of an unintelligent cook. But a little study and thought expended upon this subject can always result in *furnishing variety in a wholesome diet* without material increase of expense.

"The *hours for study and for meals* should be so regulated that sufficient time should be allowed before each meal for children to wash and prepare themselves comfortably, without going to the table excited by hurry, and they *should be required to remain at the table throughout a fixed time*, never being allowed to hastily swallow their food in order to complete an unfinished task or game. An *interval of half an hour* or more should intervene for recreation after meals, in order that digestion may be well under way before any mental exertion is required. *Constant nibbling* at food between meals should be *forbidden*; it destroys the appetite, increases the saliva, and interferes with gastric digestion. The *number of meals* for children should be *adapted to the age* of the pupils. For young children from ten to twelve or thirteen years of age it may be necessary to furnish food somewhat oftener than for the older ones.

"If children live at a distance from their school, or if they are weak and easily fatigued and inclined to sleep

over in the morning, their *hours for study should be so adjusted that they are never obliged to hurry their eating* in order to be on time for school work. The teachers should consider themselves *quite as responsible for regulating this matter as are the parents.*

"Children should never be hurried off to school in the morning with an insufficient and rapidly eaten breakfast. Their appetites are often poor at this hour from the effects of an ill-ventilated sleeping apartment, and if they are subsequently kept at school for five hours without luncheon they will be very ill prepared for mental work. Or they ride to school without exercise after a hasty breakfast, take a hurried cold lunch at noon, and perhaps a warmed-over late dinner, and at six or seven o'clock a fourth meal, after which they are expected to study and go to bed.

"It is being more and more realized by teachers and the public in general that the breaking down of health at school is quite as often, if not oftener, due to impoverished nutrition than to overwork.

"A fact which is often overlooked in the dietetic treatment of growing children is that their digestive processes are so active that the stomach is emptied somewhat sooner than in the case of adults, and their meals being promptly absorbed, it is natural for them to become hungry if the intervals between the hours of eating are prolonged. In some schools, children are given their last meal of the day at six o'clock in the evening, and they may not breakfast until seven or half past seven, or even later, leaving an *interval of over thirteen hours during which they have no food at all.* The evening meal is usually made light, on the ground that they can sleep better, and is therefore sooner digested. *Robust children can, perhaps, thrive on this treatment, but those less strong are injured by it.* For some school children of from ten to fourteen years of age it will be much better

to give the evening meal later, at say seven o'clock, and the breakfast at half past six or seven, and if they awaken hungry during the night, there is *no harm in their having a glass of milk and a cracker.*

"Very delicate children whose appetites are poor and who do not do justice to their regular meals *should be given an extra allowance* of hot broth or hot milk, or an occasional cup of chocolate, with bread and butter and rusk, *between meals.*

"These general rules are applicable in cases of children who, during one or two years, seem to develop with extraordinary suddenness and rapidity, growing sometimes two inches or more in six months, and attaining a height quite disproportionate to their frames. The demands of this rapid growth must be met by proper nutrition, or serious subsequent impairment of vitality may result. Such children should have their meals made tempting by good cooking and pleasant variety, as well as an agreeable appearance of the food.

"Meat which is carved in unsightly masses, and vegetables which are sodden and tasteless, will be refused, and an ill attempt is made to supply the deficiency in proper food by eating indigestible candy, nuts, etc. Children often have no natural liking for meat, and prefer puddings, pastry, or sweets when they can obtain them, and it is the more important that meat should be made attractive to them at the age when they need it.

"It is unnecessary to discuss further questions which, after all, must be controlled by tact and circumstances of individual cases, and the line must be drawn with care between making a child too fastidious on the one hand in regard to the nature of its food, and, on the other hand, impairing its constitution by monotony of diet and ill-cooked viands. Children at school should especially be required to eat slowly, for the habit of fast eating is almost contagious, and, as it is much easier to acquire than

to overcome, the foundation of dyspepsia and life-long discomfort may be laid in this way in childhood."

A Sample School Diet.—"If early rising is insisted upon, a *child should never be set any task before breakfast*, especially in winter, and if it is not expedient to serve a full breakfast at half past six or seven, the child should be given a bowl of hot milk and bread, or a cup of cocoa with a roll, or other light food; breakfast may be served later, after the first exercises of the morning, and should be a substantial meal with animal food in the form of either fish, or eggs, or cold meat of some sort, with porridge of wheaten grits, or hominy with milk or cream and abundant sugar, also bread and butter, with some sweets in the form of jam, or marmalade, or stewed fruit. Dinner, which should always be served near the middle of the day, should comprise meat, potatoes, with one or two green vegetables, and some form of sweet pudding. The supper, it is generally admitted, should comprise only easily digested articles of food, and such substances as pastry, cheese and meats are better omitted. It should consist of either a porridge with milk or cream, or a light farinaceous pudding of rice, tapioca, sago and the like, with bread and butter, and some simple form of preserve; or stewed apples or prunes, or very light plain cake, or a good bowl of nutritious broth with bread or crackers may be substituted for the porridge or pudding. It will sometimes be found best to serve this meal at seven o'clock or half past seven; and, if hungry, the child may be given a slice of bread and butter and a cup of weak tea or coffee, mostly hot milk, at half past five or six o'clock.

"Children need fat, but they do not digest meat fat well, as a rule, and are very apt to dislike it. They will often take suet pudding, however, when hot mutton fat wholly disagrees with them.

"Milk should be freely supplied, not only in the form

of puddings and porridges, but as an occasional beverage, and *children should be made to understand that when hungry they can obtain a glass of milk, biscuit, or a bowl of bread and milk*, for the asking.

"Fresh fish, eggs and bacon are all wholesome and serviceable foods for children, and meat, as a rule, may be given twice a day, but not oftener. It may sometimes be advisable to give it but once a day when fish or eggs are supplied; it should, however, always be given at least once daily, and better twice to rapidly growing children. Large, strong boys require a great deal of meat, and its use should not be stinted. The larger boys may eat from seven to nine or even twelve ounces of cooked meat as a ration, although many children may not require so much, the smaller boys doing well with from five to six ounces, and the older boys with from seven to eight ounces daily.

"During midwinter, when fresh vegetables are almost unobtainable in severe climates, vigorous boys are apt to have too much meat given them, and Yeo calls attention to the fact that eczema may be produced in them by a too exclusive animal diet.

"Overeating should be guarded against. The habit of slow eating should be insisted upon.

"It is well to allow children to play but moderately immediately after eating, and to require no mental work of them at such times.

"For some reason the diet in girls' schools is apt to be much less carefully regulated than in corresponding schools for boys. This applies not only in the United States, but it has been found the common experience in England and France; it is the more unfortunate, since girls, from their greater delicacy of constitution, especially during school age, require more careful nurture. Differences in habits and exercise and out-door recreation, no doubt, in part, are responsible for the compara-

tive lack of proper development in some girls' schools as compared with boys', but this should be recognized and regulated with as much care as the diet.

"During the establishment of puberty it is best for children to avoid stimulating and highly seasoned food, and eating late at night. . . . Alcohol should be wholly forbidden."

The *British Medical Journal* says, in commenting on an article in the *St. James's Gazette*, on the question whether "parents underfeed their children," that "it is only too true that underfeeding prevails,—particularly in the girls' school; not the underfeeding of necessity, but the semi-starvation due to ignorance or meanness. The facts would be revealed at once, and the greatest benefit be conferred upon the life, health, happiness and growth of children, if we could impress upon parents and teachers the value of scales and measure. Every age has its normal height and weight, and every season and every year its normal rate of growth. The diet may be inadequate in proportion to the work required to be done, especially where work is required before food, as in early morning lessons. . . . Insufficient care is taken at home, and still more at school, to provide an adequate variety in feeding. It is often the same, day after day, week after week, and year after year. The outcry against the feeding at schools, which arises from time to time, is frequently to be traced to this defect. Most of the causes of the underfeeding of children, both at home and at school, would disappear if the scales and measure were systematically resorted to, for they would instantly point out those children who were not thriving. Unnatural and unreasonable restraints would be removed by parents and teachers, if hindrances to growth were so palpably presented to them."

School Luncheons.—Some years ago a well-known

editor discussed the question of school lunches in a thoroughly practical manner, and as the problem is an important one in connection with food for growing children, I will give you the salient points of her article.

She said: "So much attention is now being given to the scientific value of foods that no intelligent housekeeper needs to be reminded of the fact that age and occupation must be taken into consideration when preparing the daily menu for the members of her family.

"But the problem becomes an important one when we realize that upon the food of our children depends their healthful development, and that upon this depends, in a large measure, the future of the state.

"When we know that the right food, chemically considered, and not the most delicious or tempting, is the basis of all growth, mental as well as physical, the importance of the subject in regard to children becomes overwhelming.

"The majority of the children who are soon to be men and women, fathers and mothers, in their turn, is now being educated in our public schools, and threaded through and through the school communities are children who represent hundreds of thousands of homes where proper food is never thought of, and where such a matter as getting a given amount of nourishment for a given expenditure is never considered.

"Boston some years ago turned its attention to these facts, and, as a matter of experiment, decided to assume some control of the noon luncheons of the higher grade schools. It was hoped by this to improve the nutrition of the children, and indirectly to improve home conditions, where the need existed, by educating the boys and girls to a higher standard of living, cookery and cleanliness.

"Other cities, east and west, watched the experiment

with interest, and offered the Hub the flattery of imitation more or less close, and most of the higher schools came well in line for the new order of things."

The state of things in the Philadelphia Normal School for Girls at that time is best described in a letter sent the *Household* by a woman in charge of the luncheons served there.

"We have demonstrated," she writes, "that the average schoolgirl, in spite of the fact that she has been accused of a special predilection for pickles, pretzels and sweets, does appreciate a wholesome hygienic luncheon. A large basement room of the building has been fitted by the committee on the school with tables and stools and a long lunch-counter at one end of the room. Other tables have been placed in the corridor in order to seat as many as possible, although the capacity is even now wholly inadequate. Another room with separate counters accommodates the pupils of the School of Practice.

"The success of the new arrangement has more than satisfied all the hopes of the committee of the faculty who have the matter in charge. Quarter before twelve luncheon is ready, four attendants standing behind the counter, to serve the students as quickly as possible. About five hundred buy either a part or all of their luncheon.

"The menu each day consists of soup, cocoa, sandwiches, milk, fruits, rusk, biscuits and cakes of different kinds. The soup varies each day, as well as the sandwiches and cakes. Great care is given to keeping the soup and cocoa hot.

"During the warm weather ice cream was served every day; now it appears but twice a week. Whole wheat bread has been introduced, and is rapidly growing in favor. Believing in the old adage of the horse who couldn't be made to drink, the committee decided that some concessions must be made at first, and that only gradually

would the more wholesome articles be given preference. That time is rapidly approaching. It is more often now that cakes are seen on the counter after lunch is over, where formerly it was sandwiches and fruit.

"Since many students bring a part of their lunches, the food purchased does not, of course, indicate altogether the quality of the luncheon actually eaten. Fifty sandwiches a day seem a small number to sell to so many, but probably most of the girls bring this substantial part of the lunch from home.

"It is the hope of those now serving the lunch to prepare hot dishes other than soup for the same price, in order to give as much variety as possible."

The committee on hygiene of the Boston School Board (*which committee, by the way, should be duplicated on every school board*) went a step further in securing an order to the effect that only such food as was approved by it should be sold in the city schoolhouses. They then placed the task of supplying suitable lunches with the New England Kitchen (an institution somewhat similar to our College Settlement Kitchen), and although at first private funds were needed, the experiment soon proved its success by becoming self-supporting.

The beneficial effects of these simple hearty luncheons on the mental vigor of the students and their appreciation of their value were practically shown during the school year and fully reported. A noticeable benefit was reported by the parents also.

With all these favorable and encouraging results, why are these experiments not repeated in every one-session school in the country?

Although our cities and towns do not yet admit, as those of the more paternal governments have done, that their responsibility for the children while in school includes the care of the body as well as of the mind, yet this responsibility is being somewhat recognized when

the newest high-school buildings are planned with kitchen and lunch rooms. But furnishing the equipment is but the first step in the right direction, and placing the work of supplying food in the hands of any one individual is but the second. Even should the city or town assume the financial responsibility of these luncheons, the plans would be incomplete without some one to set a standard of quality and cleanliness, to insist that the food must be not only attractive, but of good nutritive value, suitable for the children and served in proper fashion. Some one, too, must have strength of mind to stand firm for the principles involved, even if the boys "go on a pie strike," as happened in a neighboring city, or if the bake-shop around the corner hangs up a sign that reads: "Here you can get what you want, and not what the city says you must have."

And the educational side is not the least of the work, while the mothers still ask: "Why are you not willing to sell pies?"

The lunch may be sent, as in Boston, from one central station, or it may be largely prepared in the school kitchen. Each method has been successfully tried, and each has its own special advantages; but under either or any condition, the essential point is the maintenance of a high standard of cleanliness and quality by *some one with a broader point of view than is possible to the person who comes directly in contact with the children at the lunch-counter.*

A broad-minded educated woman is the one best fitted to hold that standard for the community, and this work is worthy of her efforts.

It may seem prosaic, and it will be full of petty details, but it has its inspiring side also in the consciousness that it may bring an influence of far-reaching effect on the physical and, consequently, mental and moral vigor of the men and women of the coming generation.

Professor Dutton, in response to a personal request for the same, writes in regard to this question as follows:

"The lunch room becomes at once a central factor in any well-conducted school. Its importance is increased by the fact that the breakfast is often too hastily eaten, and hence is insufficient to sustain the child during the entire morning.

"The Horace Mann School is equipped with a lunch room large enough to seat three hundred pupils at tables. Connected with it is an ample kitchen equipped with the necessary steam tables, ranges, urns, etc., for keeping food hot. The children in the elementary school occupy the lunch room from 11:30 a. m. to 12 m.; the high-school pupils from 12:15 to 1 p. m.; and after that the students of Teachers' College are admitted. It is under the same general management as the Columbia University lunch room, and while the ideal has probably never been reached in such matters, the dietaries provided are nutritious and wholesome. Many pupils prefer to bring from home a portion of their lunch, as, for example, a sandwich or bread and butter, and to supplement this with a cup of hot soup or bouillon, with, perhaps, a cup of cocoa or a glass of milk. As the pupils enter the lunch room each one takes a tray, and, passing along in front of the counter, takes what he desires, and pays for it at the cashier's desk. The only thing needed is to secure greater perfection in the selection and preparation of the daily menu. A committee, consisting of the teachers, college physician, and the principals of the high and elementary schools, has this matter in charge, and is working in cooperation with the caterer.

"The health of the pupils is singularly good, and the success of the school in its various athletic enterprises is marked. Doubtless, some of the credit for this should be awarded the lunch room. The large expense devoted to this feature of the school is only a recognition of the

principle, now so well established, that physical health transcends all other considerations in the rearing of children, and that a school must manage its affairs with this idea in view."

The growing interest felt now throughout the country in the subject of the food and nutrition of man brings about the question: What place should this work take in the schools, and to what extent can it be introduced?

In presenting the history of the movement that brought the teaching of cooking into the public schools of New York City (see Government Bulletin No. 56, United States Department of Agriculture), I endeavored to show the pedagogical as well as the practical value of this branch of manual training. Doctor True, director of the office of experiment stations, says, in regard to the subject of instruction in cooking, that this branch of manual training, as introduced into public and private schools, is steadily increasing in the favor of many school officers and of the people who support and patronize the schools. It has been found possible to adjust the relations of the practical exercises to the general educational features, so as to maintain the interest of pupils in the mere routine processes of education, but at the same time to *furnish them with some degree of practical skill and knowledge of direct utility to them in the various industries on which the livelihood of the masses of our population depend.*

Much of this work has been done in cooperation with social settlements; special effort has been made in the attempt to acquaint the public with the practical results of such work, and such reports show the necessity of a more thorough training, *from a broad standpoint*, of teachers of domestic science. They also show to those who are vitally interested in the progress of common schools in country districts something of the organized

effort which is being made to *adapt the course of instruction in our city schools to the actual needs of the children.*

Would it not be possible for all hygiene committees of school boards to correlate the cooking school attached with the school lunch question as some are doing now? Would it not be possible for cooking classes to be held at such an hour as to make it practicable to prepare the luncheons needed for the children, thus centralizing effort, and not only utilize the pedagogical and utilitarian value of such training, but also keep in view the economical aspect, while providing the children with what, of necessity, would prove of immense benefit when considered from every standpoint? This has been done successfully in several instances. Such concerted work in the schools could be made to reach out and meet the efforts toward practical issues that are being made by associations meant to improve the east side homes in New York; the economic associations which do good in the tenement districts in New York through classes for teaching cooking; the Hartley House work and other similar efforts made throughout the United States.

Professor Dutton writes also in regard to school gardens and their corollary, home science teaching, as follows:

“Happy is the child born and nurtured in the country, where grass and flowers are his ordinary companions; where in field and forest he sees all kinds of life, and is daily learning from Mother Nature the rich and subtle lesson she has to teach.

“How difficult in town and city to make up this loss to children whose environment is a dreary waste of paved streets and houses of brick and stone. A box in the window or an occasional bouquet of flowers from the greenhouse is but a poor substitute for the grand out-of-doors which the country child enjoys.

"Surely, a people so wealthy, so intelligent, and so generous, will soon devise some means of permitting our city children to experience and enjoy Nature in her larger and more health-giving phases. The school garden is likely to become here, as it already has in Europe, a feature of early school life. In many of our larger towns and cities it is perfectly feasible to secure vacant lots of land at small expense for this purpose. In New York the problem seems more difficult. With the transit facilities promised for the near future, it may become possible to institute weekly or bi-weekly half-days in the country for the boys and girls who are old enough to go, under the direction of their teachers. Large tracts of land should be leased or bought on Long Island, in New Jersey, or in Connecticut, for school gardens. These gardens should be in charge of competent persons. The planting should be widely differentiated, the simpler work being done by the younger children, and the more difficult and complex by the older. For such municipal effort for the betterment of children, trolley cars should be free. The vacation school problem would then be largely simplified, and its value greatly enhanced. Nature study would become *real* and not *artificial*. The child of the tenement house would know the world of his ancestors, and would have his choice of life's opportunities greatly widened.

"It is safe to predict that leading the growth of our cities out to Nature and up to Nature's God will tend to promote health and happiness, and will lessen discomfort and crime."

Unification of effort and systematic basic work in school conditions could easily bring about such a consummation, and every thinking person must certainly concede the necessity for such unification.

When facing difficulties such as are already granted to exist in present food conditions of school children, we

must find the quickest and easiest way out of difficulty in order to achieve results. Theory must be instantly reduced to practise; the lack of this is one of the crying evils of to-day in the study of home science, and a word of caution might well be extended to those teachers of domestic science who fail to keep the ends in view, the material they are dealing with, the means at hand, the conditions and fluctuations, the proper selection of means and the proper application of means.

RECIPES

BROTHS AND SOUPS

The first point to impress well on the mind in making broths and soups is that good material must be used, and that the meat must be treated in such a manner as to extract the nutritious juices. This can not be done by using hot or boiling water, which, incredible as it may seem to those who know better, is frequently done. Cold salted water must be used, and the meat should be allowed to soak in the water for several hours before it is subjected to heat. Even then it should only simmer (not exceeding one hundred and sixty degrees Fahrenheit). At the last it may be boiled for one or two hours to dissolve the gelatin of the bones, etc., if they are used; but this is not necessary, as chopped lean meat is preferable for nursery use, and a continued low temperature without boiling will produce a very nutritious broth. The time for simmering may be regulated by the requirements of the household, the minimum time being two hours. If the broth is to be used the same day, it is well to have the meat delivered at an early hour, as this will allow ample time for the entire process before the hour of noon-day dinner, using ice for cooling and skimming, which must be carefully done. It is preferable, however,

to have it made the day previous, as then every particle of fat can be removed. Fat plays a very important part in children's diet, but it is not to be served floating upon poorly made soups. The greatest care should be exercised in this direction.

Chopped lean beef or mutton (from the neck preferably), a half-pound daily, with one pint of water, different vegetable seasonings, with a little veal added to the broth occasionally, should give sufficient variety, with the addition of milk and chicken broths, for all requirements. Yet if, for any reason, it is desirable to have something different, there are many well-recommended recipes from which to select. For children over fourteen months of age, rice, tapioca, barley or sago may be added to beef or mutton broth, half a tablespoonful to the pint, but it must be thoroughly cooked. Different vegetables may be added later in the same way, to give variety for children over two and a half years old, spinach, celery, onions and cauliflower being especially useful from a dietetic standpoint. Macaroni in its various forms may also be used as an addition, and makes a pleasant change. If, in making broths, the measure given is reduced by cooking, add sufficient water to keep to its original quantity. When using parsley for seasoning, do not mince it in the usual way. Children will frequently object to it, and by using a bunch uncut the same result will be attained. This applies as well to celery, spinach, cauliflower and onions. Children have been educated to eat these vegetables without any trouble beyond first introducing them into some favorite soup, not using too much at first, and having even that pressed through a purée sieve, gradually increasing the quantity until the taste is acquired. This is not always necessary, as in some instances the little ones take kindly to and enjoy them from the first. The suggestion is given for those mothers who find difficulty in getting children of three

or four to eat juicy vegetables, which are an important adjunct to nursery fare. Doctor Yale says: * "The value of these vegetables is not so much from their nutritiousness, which is not very high, as because of the salts they contain, and because they are palatable to many. By reason of the salts, they are useful as preventives of scurvy, a disease, however, not common in childhood, except when the diet has been particularly restricted. They should all be very thoroughly cooked, and if passed through a purée sieve will generally agree. But for some digestions, the flatulent tendency of the onions and cauliflower can not be gotten rid of even in this way."

Cooks should be instructed to save all the water in which these vegetables have been boiled (taking it for granted that they have previously been properly washed), as there is nothing more delicious to add to stock than these flavored waters. They can also be utilized in making milk broth, which is nutritious as well as stimulating. Many an adult who dislikes milk, hot or cold, would be surprised, were he to try it, to find how palatable a well-seasoned hot milk broth can be, and how quickly it drives away that tired feeling, which is the natural result of a busy day.

In making broths or soups, use agate, porcelain or earthenware; tin utensils give a bitter taste. A close cover is also necessary, to prevent evaporation and to keep out the dust.

The following recipe, given for a nutritious beef broth, will prove a comfort to busy mothers, as children rarely tire of it, and it can be made in quantity, keeping perfectly in a cool place. There is then very little labor connected with this portion of the dinner to be prepared daily, beyond changing the seasoning from day to day. Another point in its favor is that it may be taken from

* *Nursery Problems.*

a cup or glass; consequently the busy mother is free to attend to the remainder of the dinner, or to take a moment's rest while the little ones are enjoying their broth. Young children are generally better able to handle a cup or glass carefully than a spoon. These things may appear trifling to many, but a little rest is a priceless boon to a tired mother, who too often pays little attention to her own requirements in any direction.

Beef Broth.—The materials needed are chopped lean beef, cold salted water, in the proportion of a pound of meat to a quart of water for children two and three years of age, and a pint of water and one large onion cut into pieces for children over three. Soak the meat, and onion, if used, in cold water for two hours at least (six is better) in the vessel in which it is to be cooked, keeping it on ice or in a cool place during this time. Then set it upon the back of the range, or, if it is to be made upon a gas, alcohol or oil stove, use a double boiler, and keep the heat moderate by regulating the flame. Keep the vessel covered and allow the broth to simmer, keeping up the original quantity of water for three hours at least. Let it cool overnight, remove the fat in the morning, and keep covered in a cool place until needed. If this is done, and the entire quantity is reheated to the boiling-point every time that some of it is used, it can be kept in winter for several days.

The variety of seasoning should be considered when preparing the dinner for the general household, as labor is thus economized. For instance, if spinach is to be cooked for late dinner, a portion of it pressed through a purée sieve, with some of the water in which it was boiled, should be saved for the children's broth next day, care being taken to have it put on ice in china, glass, or agate, closely covered. (Spinach, to be delicate, must be boiled rapidly in a large quantity of water.) There will be no danger of the little ones growing tired of an

endless succession of plain meat broths, if the vegetables allowable are used in this way for variety.

Alternate the above for children over three years of age with any of the following soups, as they may fill in with the general household cooking; but it is advisable to have the beef broth on hand at all times, to be provided for emergencies.

Milk Soup.—Ingredients required: one pint of milk, one quart of boiling water, two onions, salt, a teaspoonful of butter, one heaping teaspoonful of flour.

Boil the onions tender, and press through a purée sieve into the water in which they were boiled, using an agate saucepan, adding sufficient boiling water to make a quart. Season with salt, add the milk, rub the butter and flour together, and stir into the soup, bringing it to the boiling-point, stirring all the time. Serve hot, as a tepid milk soup is abominable. By the time the children are ready to take it the temperature will be about right. This soup may be varied in endless ways with the vegetable waters indicated above, or with vegetables, chopped oysters, chicken jelly, etc.

Chicken Broth.—Cut up a fowl (not a young chicken) into small pieces, rejecting the fat and skin unless the latter is white and tender, cover with cold water and simmer gently for six hours. Cool overnight and remove the fat. A four-pound chicken will make two quarts of broth. A little gelatin dissolved in every cupful is useful in cases of convalescence, especially during digestive difficulties, and it may be used generally in the nursery. The broth may also be thickened with corn starch, flour or arrowroot.

Chicken milk is a particularly delicate preparation and can be made readily from the above if the broth has jellied. If not, it must be further reduced. Put in a saucepan a stalk of white celery and a stalk (not cut) of parsley with a little salt, add a pint of the chicken jelly with

some of the meat and boil until it falls from the bones. Strain and add the same quantity of fresh milk, presupposing that the pint of chicken broth has been kept intact. Bring this to the boiling-point several times and strain into a cup. This is very nutritious, and forms a slight variety.

Barley Broth.—Take the best end of a neck of mutton or lamb, cover with two quarts of cold water and add a teacupful of crushed barley. Let it stand upon the back of a hot range for an hour, then move it forward, adding at this time the vegetables desired, cut into small pieces, and let it simmer for five hours.

Cool overnight. Skim and season with salt. It is almost impossible to skim mutton broth thoroughly unless it has stood overnight. Any one trying to do so will be easily convinced of the truth of this statement.

Beef Juice.—Remove all fat and tissue from a half-pound of lean beef; broil over a clear fire from six to eight minutes; cut the meat into small pieces and squeeze out the juice with a meat-press or lemon-squeezer. Add salt. When warming, put the juice into a cup and set it in hot water, that it may not coagulate, as it will do if heated in the ordinary manner.

Beef Essence.—Put one pound of chopped lean beef, with a little salt, in a glass fruit-jar and see that the cover is tight. Place it in the oven in a pan of water or in an ordinary steamer and cook four to five hours. Strain the essence through a very coarse strainer.

Beef or Mutton Tea.—This recipe is adapted from Burnet, and is efficacious in cases of anemia. One pound of chopped beef or one and one-half pounds of lean mutton (chopped); no gristle or fat; ten drops of hydrochloric acid and a pint of water. Put the beef and acid in the water and keep it covered in a cool place for at least six hours, or overnight if possible. Simmer for two hours, strain and salt. Remove all fat when cool.

It may be used cold, or, if desired, it may be heated in a cup in warm water.

Veal Broth.—Veal broth is nutritious, and is the only form in which to use veal in the nursery. Use one-half pound of minced lean veal to one pint of salted cold water. Let it stand four hours, then simmer slowly (it should not reach the boiling-point) for two hours, strain through a coarse sieve and skim when cool.

Mutton and Veal Broth.—Use one pound of meat, half mutton and half veal, to a pint of cold salted water and proceed as above. Barley or rice may be added, a tablespoonful of either, well-boiled. Milk thickened with flour is a pleasant addition to the above or to plain mutton broth.

Chicken Broth.—Cut up a chicken, bones and all, into small pieces, put them over the fire in cold water, add a little salt and simmer for six hours. Cool, remove the fat and keep the jelly covered in a cool place. This yields a very strengthening soup, which may be made the base of many a delicate dish for children or invalids, and is desirable for school luncheons.

Chicken Custard.—Use chicken broth instead of milk, with beaten eggs, in the same manner as when making cup custard, seasoning with salt instead of sugar. Serve cold or warm, with or without thickened chicken broth.

Burnet strongly advises the thickening of broths with arrowroot, boiled flour, etc. They may also be thickened with gelatin. Chicken broth is especially nice when done in this way. It should frequently be done for school children.

Milk Soup.—One cupful of potatoes mashed and seasoned with salt. The yolks of two hard-boiled eggs, creamed with quarter of a cup of butter; one quart of milk brought just to boiling-point, but not boiled. Stir into this one large tablespoonful of flour; stir quickly to

avoid lumps; strain and then serve in very hot, pretty little soup bowls for children's noonday dinner.

Oyster Broth.—Chop six fresh oysters and heat them in an agate saucepan, letting the liquor which exudes from the oysters come to a boil. Add a very little hot water, season and serve after straining. This is very nice with buttered crackers.

Clam Broth.—1. Put a few well-washed clams in a clean pan in a hot oven, or in a steamer over a hot fire. When they open, drain off the liquor and add an equal quantity of hot water. Season to taste and thicken with grated cracker, if desired, or serve plain with buttered crackers.

2. Take about a half dozen or more clams, save and add the juice, remove objectionable parts from the clams and cut them in small pieces; add half-pint of cold water, let them boil slowly for ten minutes, strain and season with pepper and salt, add a little butter and milk if you like.

Potato Soup.—Peel one dozen potatoes and one onion and cut them into small pieces. Cook them tender in a quart and pint of beef-stock, plain water or vegetable water and rub the potato through a purée sieve. Add salt and a half-pint of hot cream. Beat lightly and serve with bits of zwieback or dry toasted bread broken into small bits into the soup plate.

Savory Jelly (adapted from Burnet).—Take half a chicken, one pound of neck of veal, one pound of lean beef (from under the shoulder is the best part for beef tea, etc.). Separate the joints of the chicken, then cut all the meat—beef, veal and chicken—into very small pieces; put the whole into an earthen covered vessel with two quarts of water and enough salt to season; stew gently in the oven for five or six hours; skim, strain and keep cool. This is a very nutritious jelly.

Roast Beef Gravy.—The thick brown essence in the

pan, called ozmazome, should be dissolved in a little water after the fat has been poured off. It may then be thickened and seasoned in the usual manner. Gravy made from meats fried in fat in the ordinary way must not be used for children.

✓ **A Home-Made Meat Powder.**—Doctor W. R. Hugard (*Muenchener Medicinische Wochenschrift*) gives a convenient method of preparing a powder from meat to be used as a nutrient. Lean meat is cut into small pieces; these are dipped into boiling fat for a few minutes, until the surface is browned, then taken out and drained on a sieve. They are then cut into fine pieces and dried in an oven for twenty-four hours with a slow fire. The meat thereby becomes dry and brittle, and may be easily ground in a coffee-mill. By this process of roasting it has lost four-fifths of its weight. This meat powder has a pleasant taste, and may be used in various ways, as in hot water, mixed with mashed potato, on bread and butter, as a sandwich, in soup, milk broths, etc. It is very easily digested, is tolerated by the most delicate stomach, and may be kept for a long time if dry and excluded from the air.

Egg Custards Without Milk.—Ingredients required: four eggs, two tablespoonfuls of sugar, the juice of an orange or a lemon or a teaspoonful of vanilla.

Beat the yolks well with the sugar and pour them into a double boiler. Stir over the fire until the mixture thickens, then add the flavoring and the whites of the eggs, which should have been previously beaten to a froth. Stir a few minutes longer and pour into a mold and cool. These custards may be made also with salt, meat juice, celery or chicken broth, for a pleasant variation. Inasmuch as there is always great demand for new dishes that are not sweet, it may be well to remember that this plan may be followed with tapioca, sago, rice and many other farinaceous foods that are generally used in sweet

pudding if used at all. It requires very little originality to make a palatable and wholesome dish of any of the above-mentioned articles without following the stereotyped plan of sweetening and flavoring. The following recipe is an illustration of this method :

Tapioca with Chicken or Meat Jelly.—Wash one-half cup of tapioca and put it into a double boiler with one-half cup of cold water. Let it absorb the water, then add a pint of chicken broth, milk jelly, or any meat infusion and cook until the tapioca is soft and clear. Season with salt and mold. Serve hot or cold as preferred. For another change, a well-beaten egg may be stirred into the tapioca when it is taken from the fire. These molds are very appetizing when served with a little of the same broth or essence that has been used in making the jelly, if thickened and daintily seasoned.

A Recipe for Invalids as Given by the Late Doctor S. Weir Mitchell.—For about a pint of good, rich milk, take one good fresh egg (if you can get it) ; while the milk is heating to the boiling-point heat the egg in a good-sized bowl very lightly (yolk and white together) ; pour the boiling milk into the egg, stirring all the time to insure a smooth custard ; add a bit of salt, with sugar and nutmeg and brandy, if you like it and need it. The milk is said in this way to cook the egg just enough to render it digestible. We have known and used this recipe in oft-repeated sickness, as well as in health, and can testify to its worth.

A Savory Breakfast Custard.—Fill a custard cup lightly with bread-crumbs, and, if convenient, add a little minced chicken. It is equally good without. Beat an egg, add a little meat, season and pour the mixture into the cup over the crumbs. Bake in the oven in a pan of hot water for but a few minutes, as eggs must be but lightly cooked to be digestible.

Poached Eggs.—To poach eggs, drop them in steam-

ing water that has just stopped boiling, having added sufficient salt to taste before putting the water on to boil. Set the water containing the eggs back upon the stove. From five to eight minutes will cook them sufficiently. Eggs poached in this way and served on toast are further improved by the addition of chicken broth slightly thickened.

CEREALS

The following cereals are all suitable for nursery use: granulated or crushed wheat, which is an all-year-round food, possessing no fat, and requiring cream to make it a perfect winter food; cornmeal, a winter food, which builds up strong tissues and is useful in constipation; purified or cooked gluten, the latter of which is always ready for use; oat flour, from which a delicious blanc-mange can be made; crushed barley, which, when properly cooked in milk or water, is an easily digested nursery food, and when mixed with gluten, half and half, stirred into cold water, and afterward well cooked, is extremely palatable; farina, which, when subjected to high heat in preparation, becomes a desirable and nutritious food, used either as a gruel, a porridge, or in desserts.

The list of cereal preparations to be found for sale is endless, but one need not go far to find a few perfectly prepared foods of this class that are assimilable when properly cooked, and which will supply the needs of growing children in variety as well as in constituents. Being heat-producers, they should be used carefully in warm weather; white hominy, rice, gluten, barley, rye and wheat preparations are the most desirable, as they possess little or no fat.

Oatmeal Gruel.—Four tablespoonfuls of rolled oats,

one-half teaspoonful of salt, one teaspoonful of sugar (if directed by the physician), two cupfuls of boiling water, two cupfuls of hot milk (or four cupfuls of water and no milk). Pour the boiling water on the oatmeal, salt and sugar, if used, and cook in a double boiler for three hours, or cook in an agate saucepan for one hour, stirring frequently, if a saucepan is used, and adding water to the original quantity. Strain to remove the hulls and add the hot milk, bringing all to the boiling-point. If no milk is used, add all the water in the beginning.

Oatmeal and Graham Flour Gruel.—Two tablespoonfuls of oatmeal and two of Graham flour, with salt, a pint of water and a quart of milk, make a pleasant change in gruels. Cook the water, salt and meal for one hour in a double boiler or steamer; then add a quart of milk, and scald or steam, according to the vessel used, for a few minutes only. Strain and keep cool.

If gruels are to be malted they need not be cooked so long as for ordinary use. One hour in a double boiler, or half an hour in a saucepan, is sufficient.

Barley Gruel may be made in the same way as oatmeal gruel, using barley that has been ground fine in a coffee-mill.

Farina Gruel is made in the proportion of two tablespoonfuls of farina to two cupfuls of water and two of milk, with salt to season; but it does not need long cooking, as it is partly prepared. Half an hour is enough for the whole process.

Cream Gruel.—For cream gruel take two-thirds of a pint of milk and one-third of real cream; the milk must be new; boil these together. If cream will not stand the test of scalding it is not fit for use; rub a tablespoonful of sifted flour to a smooth paste in a little cold milk, stir in and let boil two or three minutes. Add a mite of salt, with sugar and vanilla flavor, if desired.

Browned Flour Gruel.—This can be made by same rule as the above, leaving out cream, though it is better with it. To brown the flour, take a clean cast-iron pan, as it is thicker and less liable to burn than the ordinary pan, put in about a pint of sifted wheat flour, or less, if you are not used to the work; begin stirring with an old spoon as soon as it is hot and continue slowly, being careful to have it a nice chestnut brown when done. This can be bottled and kept for weeks. Use as much as will make it as thick as ordinary gruel. The best medical authorities recommend it highly for nutrition and digestion, being especially useful in summer diseases of stomach and bowels.

Arrowroot Gruel.—One tablespoonful of arrowroot, one-half teaspoonful of salt, one cupful of milk. Wet the arrowroot with a little cold water, add a cupful of boiling water and boil ten minutes; then add the milk and bring again to the boiling-point. Strain and keep cool.

Malted Gruel. (Adapted from Thompson.)—Gruel should be well boiled and kept free from lumps, using a strainer if necessary. When cool enough to swallow, add a tablespoonful of malt extract to a pint of gruel. In a few minutes the gruel will become thin from the conversion of the starch into maltose. All farinaceous foods can be treated in this way.

Oatmeal Porridge.—Three tablespoonfuls of rolled, ground or crushed oats, one pint of boiling water, one-quarter teaspoonful of salt. Steam for two hours or longer in a double boiler.

Oatmeal porridge is very appetizing when served cold in mold shapes, and it will frequently be eaten in this way when it would be refused if served in any other form. Variations may be made by using farina, cracked wheat, browned rice (browned in the oven before steaming and molding), hominy, arrowroot, etc., giving fur-

ther change for older children by serving occasionally with fruit juice instead of cream or milk.

Wheat Porridge requires two tablespoonfuls of wheat to a pint of salted water, and it should be thoroughly boiled or steamed in a double boiler, two hours being the shortest time to be allowed for the cooking of any porridge.

Hominy requires the same proportions, and should be cooked for the same length of time.

Cornmeal Mush (to be used warm or molded, for supper or breakfast, with milk or a little good sirup) should be cooked very carefully in a double boiler or steamer for the time given for the cooking of all cereal porridges, and it should be free from lumps when done. A very good plan to follow when cooking cornmeal or bran mush is to sprinkle the meal into a saucepan of boiling water from a fine sifter, stirring all the time, before putting it into the steamer, as freedom from lumps depends on the even admixture of the water and the meal.

Farina Porridge requires three tablespoonfuls of farina to a pint of hot salted water, and should be cooked at least an hour in the steamer or double boiler.

Oatmeal Blanc-Mange.—Put one pint of water and half a teaspoonful of salt into the upper part of a double boiler, and, when the water begins to boil, sprinkle into it a scant teacupful of rolled oats; let boil briskly for two or three minutes, and then let it steam for five or six hours. Strain through a fine soup strainer, leaving all the husks behind; then stir into it one-half pint of scalded milk. Add white sugar to taste, stir over the fire for a few minutes, flavor with vanilla extract, put into cold wet molds and set on the ice or a very cold place to harden. Serve with cream. Two whipped eggs can be added if desired before turning the mixture into the molds.

This blanc-mange is very good to give to an invalid.

Oat Jelly. (Rotch.)—Four ounces of coarse oatmeal are allowed to soak in a quart of cold water for twelve hours. The mixture is then boiled down so as to make a pint and is strained through a fine cloth while it is hot. When it cools a jelly is formed, which is to be kept on ice until needed. Different proportions of this jelly can be used, but usually it is best to begin with equal parts of jelly and cow's milk. When needed, this mixture is warmed and a little salt is added.

MUFFINS, BREAD, ETC.

Cream Muffins.—To make one dozen, beat up one egg very light; mix it with four tablespoonfuls of rich sweet cream, a little salt, and a scant half-cupful of milk. Sift in slowly one and a quarter cupfuls of whole-meal flour and two teaspoonfuls of a well-selected baking-powder. Bake in a very quick oven (about fifteen minutes should suffice), putting very little batter into each muffin-pan, that the muffins may puff up and be nearly all crust, as they should undoubtedly be for the children's table.

Graham and Cornmeal Muffins may be made in the same way, using Graham or corn flour in the place of whole-meal flour.

Cornmeal Muffins are delicious when made with half cornmeal and half hominy (breakfast hominy, well cooked). Stir a teaspoonful of good butter into three-quarters of a cup of hot hominy; add the egg, salt, cream and milk; then stir in three-quarters of a cupful of corn flour and the baking-powder and bake as directed above, remembering to keep the mixture of a consistency to pour easily, as in this way the muffins will be light and crusty, instead of heavy and indigestible.

Cornmeal Mush.—Cornmeal is not used nearly so

much as it should be in the homes where there are young children. It is very wholesome for any one, young or old; and children often like it at breakfast, with cream.

To make cornmeal mush, take a pint of cornmeal mixed with a pint of milk and a teaspoonful of salt; put this into nearly a quart of boiling water, let it boil half an hour or longer, stirring often. Cook in a double boiler or a boiler with a copper bottom.

Bread.—Well-made home-made bread is infinitely preferable to ordinary baker's bread. It should be at least one day old and should be thoroughly baked.

The gluten advised above absorbs more water than ordinary starchy flours and needs less yeast. Brewer's yeast, which gives a good flavor on account of the hops used, or good home-made yeast, is not undesirable, but in these busy days no one need hesitate to save time and trouble by using the commercial compressed yeast of deservedly good repute, as it answers every purpose. Heated milk may be used for mixing instead of water, if preferred, but a very good bread may be made very easily, as follows, according to a recipe given by a cook who learned her art in Ireland. Her method reverses the usual directions in regard to the temperature of the oven, which, judging from the delicious results, is a very sensible procedure. The ease with which the bread is made will commend it to the busy housewife. Begin in the morning:

Flour, three quarts, sifted in a large bowl;
Salt, two heaping tablespoonfuls;
Sugar, four heaping tablespoonfuls;
Water, or milk and water, two quarts, lukewarm;
Yeast, one cake;
Lard, three heaping tablespoonfuls.

Put the salt, sugar and lard into the flour, and rub the lard fine by crumbling it lightly between the hands. Use warmed flour, especially in winter. Flour should always

be warm for best results in baking. A good plan is to keep constantly on hand near the fire a bag or covered pan of well-dried flour for bread, cake or biscuit. Dissolve the yeast in the warm water and pour it over the flour, mixing with the hands; then sift in gradually a quart or more of flour, adding until the dough can be turned out on the board. Knead lightly from ten to fifteen minutes, adding flour until the loaf does not stick to the board. Put it back in the bowl, cover lightly and let it rise in a temperature of about seventy-five degrees Fahrenheit for three hours. Cut into loaves and put into buttered pans, letting them rise on the rack above the range, or in a place of equal temperature, for half an hour, when they will be ready to be placed in a moderately quick oven. After half an hour, as the bread rises in the oven, increase the heat slowly to the end of the time required to bake the loaves. The time to be allowed for baking an average-sized loaf is one and a quarter hours. The usual plan in baking bread is to begin with a temperature of four hundred degrees Fahrenheit, gradually lowering to two hundred and fifty degrees Fahrenheit, with the frequent result of a loaf of bread that is soggy in the inside and very hard on the outside. In the above method the reverse is the case. The result should be dry, well-baked, evenly browned loaves of bread, that still retain enough moisture to keep them as they should be.

The use of bread made from the whole grain meal should be encouraged for children, for the following reasons: they must be restricted in a meat diet, therefore such bread supplies a much-needed addition; it contains forty instead of twenty per cent. of gluten and contains twice as large a proportion of certain salts—chiefly phosphates—as white bread; it contains also the laxative fatty matter on which great dependence is placed when arranging a dietary for children.

Points to remember in buying flour and baking bread are that a good bread flour does not cake in the hand when squeezed, that kneading must be done lightly, to keep the bread porous, and that the temperature for the rising of the sponge should be from seventy to eighty degrees Fahrenheit, not higher.

The use of bread may begin in the nursery as early as twelve months, if a sufficient number of teeth are present, which should be the case at this age. Doctor Rotch says, "Good butter on the bread may usually be allowed at sixteen months."

In some form, at the ages indicated, bread or biscuit should be given at each meal—*i. e.*, stale bread or crust of French bread, zwieback, toast and Graham bread, or soda, oatmeal, Graham, gluten, or educator biscuit. These are all permissible when they can be chewed thoroughly. Oatmeal and Graham biscuit belong to laxative foods, and should be used accordingly. Jerome Walker, M. D., says in regard to this subject that "probably, with the exception of candy, no article that is eaten is so much abused as the animal-cracker. Before these crackers were introduced children were content with a few butter, soda, milk, or even ordinary sweet crackers at one time, but now the child is anxious to eat a number of animals. The cracker-maker, detecting this propensity in children, furnishes a wonderful assortment of animals, and the child is eager to eat one, at least, of each kind purchased. The mother thinks these animals are so nice for the children to play with that frequently she sends out for a half-pound or a pound, and she often gives all to the child to keep him quiet as he is trundled along in his carriage. What is the consequence of so much sugar and starch? It perverts the appetite, teaches the child to reject soups, broths, bread and butter, and milk, and to prefer sweets and pastries, and also induces starchy dyspepsia."

The use of zwieback (twice-baked bread) can be thor-

oughly recommended. It possesses the advantage of being more easily digested than ordinary bread on account of the double baking.

The following recipe may be used for zwieback, for a change from that made from ordinary home-made bread:

Moravian Cake.—This is best when started in the morning, unless the last rising can be attended to very early in the morning. If this can be done, set the sponge about five o'clock in the evening, using one cup of potatoes mashed in one cup of the water in which they were boiled, one cup of sugar, one-half cake of yeast dissolved in a little warm water, with flour enough to make a thick batter. Cover and keep in a warm place (about eighty degrees Fahrenheit); beat occasionally during the evening, and at ten or eleven o'clock mix in the batter one cup of sugar, three eggs and three-quarters of a cup of lard and butter, a pinch of cinnamon and enough flour to stiffen, kneading it well into a dough that will not stick to the sides of the bowl. Leave it well covered, in a temperature of seventy degrees to seventy-five degrees Fahrenheit, until early in the morning, shape into loaves or any form desired, let rise for half an hour, spread the cake with a sauce made of a cup of sugar, one tablespoonful of hot water, a small piece of butter and enough cinnamon to darken the sauce, and bake in a moderate oven.

The above may be used as sweet bread, cake or toast. By cutting it into thin slices, buttering it lightly and browning delicately in the oven, you have a delicious change for the frequently stereotyped nursery menu.

A word of caution should be heeded when making toast. It should be done in such a manner as to dry it thoroughly in the middle before browning takes place. Soggy, quickly made toast is decidedly not allowable in the nursery.

A simple sponge or tea cake may be used occasionally, when given with moderation to children over five, either

in the form of lady-fingers, or as the ordinary sponge or tea cake made by the average cook. It must be well baked, not fresh, and should be just as light and porous as good bread should be, not notably moist, nor rich, nor full of fruit.

Meats.—The best portions of beef for nursery use are from the loin for broiling, and from the neck, rump, or first and second cut of the round for other uses, which will be indicated. This selection is independent of joints for roasting or boiling. Either a sirloin, porterhouse or tenderloin steak is most suitable for broiling, and it should be cut from one to two inches thick—two inches is better—to keep the meat juicy. Trim off the fat, wipe with a clean damp cloth, place in a heated wire broiler which has been greased to prevent sticking and hold directly over a glowing bed of coals. A live fire is necessary, not one that has begun to cool. The steak should be turned five or six times during the first minute, that the outer sealing may be quickly done; then the broiler must be held farther away and the meat finished more slowly, turning at this stage once every half minute until the meat is done. It should be pink and juicy inside, but not raw. Seven to ten minutes over a good fire will usually cook to perfection a steak from an inch and a half to two inches thick. Have the plate upon which it is to be served warm (not hot), season the meat with salt and use care in handling it that the surface may not be broken and the juice lost. For nursery use, salt is the only condiment allowable. Never use melted butter on the meat; all the butter required by children should be taken as cold as possible upon the bread that is eaten, not upon meat or vegetables (except in cream sauce, as indicated elsewhere), if freedom from indigestion is desired. When broiling thin steaks, or a tenderloin which may not be very juicy or of good flavor, it is a good plan to lay a thin piece of round steak upon both sides

of the tenderloin before broiling, and thus get a delicious steak, discarding the outer pieces, the juice of which has entered the middle steak.

Cooked scraped beef makes an acceptable change, or raw, when allowed by the family physician, and it may be used at an earlier age than meat is usually given. Use a thick cut from the tender part of the round or rump, scrape off the pulp with a silver knife, rejecting the tough fiber and mold it into cakes about an inch thick; then broil on an oyster broiler as you would an ordinary steak. When for any reason it is inconvenient or impossible to broil a steak or scraped meat, heat thoroughly a thick iron or steel pan, sprinkle salt over it to prevent sticking, and cook the meat in the same manner as if using a solid broiler, turning with a knife or spoon, not a fork, that no juice may escape. Turn quickly at first and have the pan scorching hot, then moderate the heat and finish more slowly. Very good results may be obtained in this way. Do not put fat into the pan, as is so frequently done.

The above directions apply as well to the broiling or panning of lamb- and mutton-chops, which should be cut thick and be well trimmed. It requires from four to six minutes to cook a chop one inch thick.

Boiled Meats.—When boiled meat is desired, use water that is boiling rapidly to seal the meat, as one of the first results of putting meat into water that does not boil is that some of the valuable ingredients of the meat pass into the water. By having the water boiling rapidly this is prevented, and by continuing the boiling for five minutes the meat has a protective covering formed about it that keeps it juicy and nutritious. It should then be cooked at a considerably lower temperature, about one hundred and sixty degrees Fahrenheit. It may be a little higher, but should not be much less. This method applies to boiling poultry whole, as well as to beef, lamb

or mutton. When boiling beef, allow from twenty to forty minutes to the pound, according to the quality of the beef. For a boiled leg of lamb or mutton, allow fifteen minutes to the pound.

Meat Stews.—A dainty and wholesome little meat stew may be made for the nursery as follows: cut a tender piece of beef, lamb or mutton into small squares, rejecting all fat; just cover it with boiling water and allow it to simmer until very tender, adding in the beginning either a bit of onion, a sprig of parsley, a stalk of celery, a few leaves of spinach, or a few small pieces of cauliflower for flavoring, and add a very few small squares of potato; season with salt when nearly done. If the child for whom this is prepared likes the vegetables mentioned, and is old enough, they may simply be cut into small pieces; if not, they should be pressed, when tender, through a purée sieve. Zwieback, broken into small pieces (mere crumbs), is a very nice addition to either a stew of this description or to the broths which frequently take the place of meat for very young children just beginning on a mixed diet. A stew of this character, a dish of spaghetti, good bread and butter and some light dessert, like cup custard, will make a satisfactory dinner menu for a four-year-old. The stew in this menu supplies the salt-giving food required.

Roast Beef.—Roast beef, when used for children, should be rare and lean, with dish gravy from which all fat has been removed. If best results are desired, when roasting either beef, mutton or fowl, see that the oven is very hot to begin with, cooling it slightly after the sealing of the surface has been done; then baste carefully, or use a double pan, allowing fifteen minutes to a pound for rare meats, twenty for well done.

Sweetbreads.—Genuine sweetbreads are allowable in the nursery as well as in invalid dietaries, as they are readily digested. They must be prepared in a manner suit-

able for children. As soon as they come from the market they should be cleaned and parboiled. To clean, cut off all fat, bruised parts, etc., and wash quickly in cold water; boil in a granite saucepan from fifteen to twenty minutes, using boiling salted water at first; then cool and put away until needed. To complete cooking them for children, cut them into small squares and stew them carefully in a sauce prepared as follows: rub a teaspoonful of good butter into a tablespoonful of flour, using one cup of milk or cream; heat the milk in a double boiler, add the thickening (stirring it in carefully), the sweetbreads and a little salt. Stir continuously until both sauce and sweetbreads are cooked, which will be in about fifteen minutes—in ten if made in a single saucepan. The double one is preferable, as it prevents scorching. Any sauce containing milk and flour should be made in a double boiler or in a saucepan fitted into the top of a tea-kettle. Care must be taken to cook the sweetbreads the required time only, as longer cooking is likely to harden them. French peas, if tender, may be used with these for children over five when digestion is normal. A little beef broth, sweetbreads, either prepared as above or broiled, with peas or stewed celery, bread and butter, boiled rice and a simple dessert would be a satisfactory menu for the age mentioned.

Eggs.—Eggs are a desirable substitute for meat at any time, and as an article of diet, when properly cooked, give concentrated nutriment. They may be prepared in a variety of ways, with or without the addition of other foods, but for nursery use the plain boiled egg is most desirable. Care must be taken to have them perfectly fresh, as it is of great importance that stale eggs should not be used. A fresh egg will sink in salt water (one tablespoonful of salt to ten of water) and in proportion to its age it approaches the surface. Every woman thinks she can cook an egg, no matter how unskilled she may be

in other branches of cooking, yet it is perhaps the least understood of all processes of making foods digestible by proper treatment. The usual method is to drop the egg in boiling water, which is allowed to continue boiling for two, three or four minutes, according to the taste of the consumer. The result is either an almost raw egg or one with a hard white and uncooked yellow, and, generally speaking, the whole egg, when cooked in this way, is tough and indigestible, unless it is eaten almost raw. Sufficient boiling water (about a quart) should be set aside for a few moments, when it will be of the temperature required. It should then be poured over several eggs in a good-sized saucepan, which should be covered and set back upon the range from eight to twelve minutes, according to whether they are liked very soft or not. These eggs are milky-looking, soft, cooked all the way through and are easily digested. Doctor Thompson gives an excellent way for cooking eggs, as suggested by Henry.* Immerse a teacup in boiling water until it becomes thoroughly heated. It is then removed and the egg is broken and dropped into it, and the cup may be wrapped in a cloth. Sufficient heat is retained by it to cook the egg without water and to remove any raw taste.

The white of egg, when eaten raw, diluted with water or milk, is easily absorbed, and is a valuable food in gastric disorders.

Fish.—Fish, if fresh and of the right kind, is an excellent food for the nursery. It is of great nutritive value and is less stimulating than meat. Being digested more rapidly, it is necessary to consider this when estimating quantities for a child's dinner. A larger portion should be served than would be given if meat were used. Broths should always be used after five years to supplement a child's dinner when fish is given instead of meat.

* W. Gilman Thompson, M.D., *Practical Dietetics*.

Children who are unable to take much active exercise should have fish and broths more frequently than meat, as fish is especially indicated for persons of sedentary habits.

Fish should be scaled and cleaned as soon as they come from market, washed quickly and put in a cool place, not on ice, but near it, if possible. The white-fleshed fish are the only kind to be considered in this connection and the flesh should be firm and hard. If it is flabby it is unfit for use for child or adult. The German method of selling fish alive might well be introduced in this country.

For nursery use it may be boiled, creamed, baked or broiled—never fried. It should be served plain, or with a sauce made of cream or milk as directed for sweet-breads. The well-beaten yolk of an egg may be added to this sauce after removing from the fire.

To cream fish it must be flaked, the bones removed very carefully, and then boiled gently for twenty minutes, seasoned with salt and added to the cream sauce mentioned.

For broiling, turn the flesh side to the fire first, then the skin, taking care not to scorch the latter, which is very quickly done if care is not taken.

Oysters.—The soft part of oysters may be freely used in the nursery for children over three years of age. They are very nutritious, and are greatly desired as an appetizer and for variety. The soft part is easily digested and may be given raw to any child who takes meat and broths. The juice may be given earlier, in small quantity, but it is a frequent occurrence for a child under five to refuse to eat oysters offered in any way. They are a very acceptable addition to an ordinary milk soup when chopped fine, after the hard part has been removed. Care must be exercised as to season; they are frequently placed on the market before they are in good condition, and just as frequently they are kept for sale

longer than is desirable. The season is supposed to be from September to April, but it is safer, for children, to consider it from October to March, unless cold weather has come early or continues exceptionally late.

Squabs, Chicken, etc.—Squabs, partridge, pheasant, chicken and turkey may be used alternately with beef and mutton menus for dinner after five years. Squabs and chickens should be stewed or broiled and the most tender parts selected for young children; the white meat of roast chicken or turkey may be given, if minced fine, to children under five about three times a week. Partridge and pheasant should be broiled and the breast used in the same way.

Creamed Chicken.—Two cups of cold chicken cut into small pieces, one cup of chicken stock, one cup of milk or cream, two tablespoonfuls of butter, one heaping tablespoonful of flour, salt and pepper. Cook the butter and flour together in the chafing dish; add the stock and milk and stir until smooth; put in the chicken; salt and pepper and cook three minutes longer.

Blanquette of Chicken.—One pint of cold chicken cut in dice or small pieces, one tablespoonful of butter, one heaping tablespoonful of flour, one-half cup of white stock, yolk of two eggs, one-half cup of cream, parsley, salt, pepper, lemon, nutmeg. Stir the butter into the flour; before it browns add the stock; stir a minute; add a little lemon juice, white pepper, salt, slight grating of nutmeg and cream; boil up once and add the chicken (use the low heat and simmer eight minutes if using electricity); then add the eggs well beaten; stir in chopped parsley and serve at once.

Scrambled Eggs.—Five eggs, one tablespoonful of butter and one teaspoonful of salt. Beat the eggs in a bowl enough to blend the white and yolks; melt the butter and turn in the eggs; stir until thick and smooth; season with the salt and white pepper.

Scrambled Eggs with Tomato.—Five eggs, cupful of tomato, salt. To the eggs, started as before, add a cupful of canned tomato, drained and chopped fine. Serve directly from the pan into hot plates. Chopped ham or bacon (in place of oysters or tomatoes) makes an appetizing dish.

Plain Omelet.—Four eggs, four tablespoonfuls of milk, walnut of butter. Break the eggs into a bowl with the milk and whip thoroughly; put the butter in the chafing dish, and when very hot run the eggs into it, allowing it to cook until thick; use a thin-bladed knife to loosen it from the bottom, but do not stir it; when done, carefully roll the edges over until all rolled up. Serve on a hot plate.

Stirred Eggs.—One gill of chicken gravy, five eggs, one tablespoonful of butter, one tablespoonful of minced parsley, one-half teaspoonful of salt. To the melted butter add the gravy, and when hissing hot stir in the beaten eggs until they thicken; season and sprinkle with minced parsley. Serve on toast.

Salt Codfish.—One-half pint of desiccated codfish, two tablespoonfuls of butter, one tablespoonful of flour, one gill of cream. Put the butter into the chafing dish; when melted add the flour, stirring constantly; then put in the codfish, which has been previously soaked for an hour in tepid water; add the cream and let all simmer ten minutes, stirring constantly.

Chicken Halibut.—One cupful of cold boiled halibut, two hard-boiled eggs, one cup and a half of milk, butter size of an egg, crumbs of four biscuits (crackers), salt. Shred the halibut with a fork; put the milk into the food pan with hot water below, and let it come to a boil; add butter and salt, then the cracker crumbs, and lastly the halibut; let it cook five minutes, then add the eggs chopped fine, and serve on a hot platter with bits of buttered toast.

Stewed Oysters.—Two dozen good-sized oysters, one and one-half pints of milk, a walnut of butter and one-half teaspoonful of salt. Boil the milk in chafing dish; add the oysters, butter and salt; allow it just to come to a boil, then serve. Above is sufficient for four.

Creamed Oysters.—One pint of milk, one-half tablespoonful of butter, one-half tablespoonful of flour, one-half teaspoonful of salt, one pint of oysters, nutmeg. When the milk boils, stir into it the butter into which the flour has been rubbed; season with a slight grating of nutmeg, and salt; when creamy, add the oysters without their liquor; allow them to be just heated through, and serve on thin strips of buttered toast.

Pan Roast.—One dozen large oysters, one-half pint of oyster liquor, one tablespoonful of butter, salt. Melt the butter in the chafing dish, and as it creams add the oysters, liquor and salt; cover and cook about two minutes. Put six of the oysters on a thin slice of toast, with sufficient liquid to moisten the toast, and serve.

Sweetbreads with Peas.—Can of peas, three small sweetbreads, one teaspoonful of butter, one-half pint of stock broth, celery leaf, salt, one-half teaspoonful of brown flour. Stand the sweetbreads in cold water for an hour; then parboil and remove rough edges, membranes, sinews, etc.; put in cold water and keep on ice until wanted; put into the chafing dish the butter and the sweetbreads. When the butter has been absorbed add one-half pint of stock and the celery leaf, chopped fine, the salt and browned flour; turn the sweetbreads; when the same is reduced one-half it is ready; when cooking, open a can of green peas; warm thoroughly in the chafing dish; put in salt and a tablespoonful of butter. Serve peas and sweetbreads together.

Lamb with Tomato.—One pint of lamb stock, one-half pint of canned tomato chopped fine, one pint of cold lamb cut in dice, one tablespoonful of butter, one tea-

spoonful of onion juice, and salt. Boil the stock, then add the butter, salt, onion and tomato; boil and then put in the lamb and simmer a few minutes.

Lamb Chops.—Small lamb chops, butter, salt, rub inside of chafing dish with butter; let it get very hot, so it will at once sear the chops and prevent the escape of the juice. Turn them often while cooking.

Fricassee of Dried Beef.—One cup of beef finely chopped, one tablespoonful of butter, two eggs, one-half pint of milk. Melt the butter in the milk; add the beef and cook five minutes, then put in the beaten eggs, slowly, and stir until the sauce is thick. Serve on toast.

Dried Beef.—One-half pound of dried beef, two tablespoonfuls of butter, one-half pint of milk, one tablespoonful of flour. Put the butter in the chafing dish and add the beef; fry until brown, then add the milk; cream the flour with a little cold milk, then stir it in. Serve on toast.

Creamed Potatoes.—One pint of cold potatoes cut in cubes or thin slices, milk, one tablespoonful of butter, one-half tablespoonful of chopped parsley. Put the potatoes in the chafing dish, cover with milk and cook until the milk is absorbed; then add the butter, salt, pepper and parsley. Stir a few moments and serve.

THE USE OF VEGETABLES IN THE NURSERY

Spinach.—Spinach, which is a wholesome vegetable when properly cooked, acts as a useful aperient and is frequently prescribed for habitual constipation. It should be well cleaned, cooked in an abundance of salted boiling water, and for young children pressed through a purée sieve. It may be served with or without a little cream. When prepared in this manner it will produce no irritation, and is a vegetable that may be used fre-

quently in nursery menus, in broths or alone. It may be used for children two and a half years old.

Onions.—The onion is valuable in several ways. It adds flavor to foods and is slightly laxative. The French consider a purée of onions a great restorative in debility of digestion. Either the Spanish or Bermuda onion is preferable for the nursery. It should be boiled tender in stock or water and served with cream sauce, or baked, wrapped in a buttered paper, in a moderately heated oven. When made into a purée it is a satisfactory addition to a dinner consisting partly of starchy foods, like rice or potatoes, supplying the fat necessary for these vegetables in the butter added to the milk or cream in the sauce to be used with the purée. As onions belong to the variety of vegetables that contain little starch or sugar, a sweet dessert, like wine jelly, should be used with any menu calling for this vegetable. They may be used with care for children over three, watching for individual idiosyncrasies.

Celery.—Celery is both wholesome and digestible if in good condition. It may be eaten uncooked, by children over six, in very small quantities, as a single tender slip at dinner, and this well scraped, unless from the heart of the stalk. The outer stalks should all be scraped to free them from the indigestible covering of cellulose or woody portion, which is harmful for even an adult. For general use in the nursery it should be stewed. Care should be taken to use the water also in which the celery has been boiled. This may be done by giving it as a broth, or by using it in making the sauce to serve with the celery.

Stewed Celery.—Cut off the tops of a bunch of celery, putting aside some of the tender and perfectly fresh portions for use for the general household. Cut the stalks into small pieces, first scraping them well.

Boil quite tender in salted boiling water, just enough to cover the celery. It will take from twenty-five to thirty-five minutes over a quick fire. Serve plain, or with the usual cream sauce, made, however, from half celery water and half milk instead of all milk. Experience will show that the tops usually require a longer time to cook than the stalks. For nursery diet the tender portions also should be used. The addition of a white stock would make a pleasant change, especially if made of chicken, veal stock being not quite so desirable for the nursery. Allowable at two and a half years of age.

Cauliflower.—This vegetable is both delicate and digestible, and a tablespoonful may be eaten for dinner by a child over three years of age. It should be taken plain or with cream sauce, not with melted butter, which is never to be allowed on the nursery table. It is very nice when cut in pieces and stewed tender in beef stock or in chicken broth. Its preparatory cleansing must be very carefully done, a preliminary soaking, head down, being the first step.

Carrots.—If very young and tender, they may be used very carefully for a child over five. Cook them soft enough to press through a purée sieve and serve a small quantity in broth or seasoned with hot cream and salt. They may also be tried, but cautiously, when cut in very small squares, served plain or not, and well cooked.

Peas and Beans.—Dried peas may be used for children three to four years old if first soaked for twenty-four hours, cooked very soft and pressed through a purée sieve. Fresh peas, if picked the day they are to be used, may be added to the dietary of a child of two and one-half years, but they should be very young and tender. They must be cooked rapidly from ten to twenty minutes in boiling salted water—just enough to keep them from burning—in an open granite saucepan; remembering that

for all vegetable cooking, in fact for all cooking in the nursery, porcelain or granite utensils should be used invariably.

Very young beans, or a purée of dried beans, may be tried cautiously for children over three. For best results both peas and beans, when fresh, should be cooked as soon as possible after picking. The use of these vegetables must be watched closely for indications pointing to assimilation or non-assimilation. It must not be overlooked that they supply a moderate amount of proteids, hence less meat should be used with a menu containing either peas or beans. A practical method for trying a new vegetable is to reserve its use for a time when the child is in perfect condition, digesting its food easily, and when the menu contains nothing but food that has been tried and found to agree. The chances are, then, that if any trouble arises it may be traced to the exact cause. Caution should always be the watchword in the nursery.

Asparagus.—Asparagus possesses diuretic properties and is a vegetable strongly recommended for nursery use, especially when in season. For children, only the tips should be used, cooking them tender in boiling salted water and serving either plain or with cream sauce. They may be used for children two and a half years old.

Tomatoes.—Tomatoes are not to be eaten when milk is in the dietary. If given at all, it should be after a child has reached five years. They should be cooked slowly for several hours in a porcelain or agate vessel, strained and thickened with a little barley, wheat or rice flour, or a few grated bread-crumbs or grated crackers. Season, when preparing, with sugar, salt and a teaspoonful of onion juice. Raw tomatoes must be used very cautiously, and not until a child is five years old. The seeds and skin should be discarded, and the tomato should be fresh-picked and just ripe. An under- or overripe tomato is dangerous food. Tomato jelly may be tried for children

over three if made from strained cooked tomatoes and gelatin, the latter to be used in the usual way.

Beets.—Beet root is a valuable vegetable, an appetizer, and belongs to the class containing sugar. This knowledge is of importance in selecting menus that should contain the proportionate amount of the necessary constituents. It is not indigestible unless tough and stringy. Very young beets may be cooked tender in boiling salted water in less than an hour. Care must be taken to wash the root without bruising it, and to cut off the top at least an inch from the beet, as this will prevent the loss of the juice that is desirable. Serve plain, cut in dainty squares or slices. They may be added to the diet of a child five years old, with caution and moderation.

Apple Sauce.—This really comes under fruits, but it may be given at dinner in place of a vegetable at those seasons of the year when young fresh vegetables are difficult to find. It should be prepared very carefully. As quickly as the apples are pared and cored they should be dropped into cold water, to prevent discoloration. When ready for cooking put them into a double boiler of agate or porcelain, or an earthen jar set in a pot of water and steam until tender, adding no water to the apples. When done, beat up with a silver fork or spoon and add a little sugar and a little lemon juice, if liked. Cinnamon, delicately sifted over the surface, is a pleasant addition. If preferred, the sauce may be made, if done carefully, in an agate saucepan, using just enough water to reach the top pieces of apple (do not cover them). If pressed through a purée sieve it should be of agate, as one of tin destroys the delicate flavor of the apple. This sauce may be given to a child eighteen months old.

Brussels Sprouts.—Brussels sprouts, when very tender and perfectly fresh, may be carefully used after a child is six years old. They must be cooked tender in salted water and served plain or with cream sauce.

Corn.—Corn for the nursery should always be used as a purée, or cooked on the cob in boiling salted water for ten minutes, the tender part to be pressed out with the back of a knife after scoring. This may be given to a child of three, as, being freed from its indigestible covering, it will not irritate. As the child grows older, the corn may be grated and served in the form of a corn pudding or omelet.

There is probably no other rule so important for infant diet as that which regulates the amount of starch to be given to a child. Of the starchy foods allowed in the nursery for dinner, rice, potatoes and macaroni are the most important. They are palatable foods, and are easily digested if properly prepared and administered at the right age.

Rice.—Rice is not suitable in itself as a sole food. It is lacking in fat and salts and is poor in nitrogenous substances, but the starch that it contains (its chief constituent) is easily digested, and it is, therefore, a very valuable food when mixed in proper proportions with articles of food that are rich in fat and albuminoids. It should not be given freely to a child until after two and one-half years, using it in broths from eighteen months to this age. A very satisfactory way to prepare rice for children is to wash it well, soak it overnight in cold water and cook rapidly in an abundance of salted water for twenty minutes. The grains will swell and they are easy to digest. If the preliminary soaking is overlooked, drop the rice gradually into the boiling water, care being taken to keep the boiling continuous while this is done, and cook rapidly for thirty minutes, stirring once or twice with a fork to keep the grains from sticking to the bottom. When done, whichever method is followed, pour the rice into an agate sieve, let a quantity of hot water run through until it runs clear and then set the sieve upon a plate in the oven until the rice

is perfectly dry. This is a very good way to prepare it for breakfast for occasional use in place of oatmeal for the summer months, serving it with cream and a little sugar or salt, as seems most advisable. Steaming is the method usually advocated for cooking rice. Inasmuch as the starch in rice is very easily digested, long cooking is not so necessary as when cooking oatmeal, etc.; and as, in selecting a child's menu, we do not depend on the small amount of proteids found in rice (which are said to dissolve in cooking), the above method, judging by results, seems to be practically preferable, although steaming may be considered so theoretically. When unpolished rice is used more salts are obtained, and steaming may then be preferable.

Potatoes.—The potato is a salt-giving starch vegetable, to be eaten with lean meats, or other nitrogenous foods. It is three-quarters water and prevents concentration in food. The remaining quarter is nearly all starch. Care should be exercised in the selection of potatoes, those that are yellowish white being preferred. The fact that it takes three and a half hours to digest boiled potatoes, and two hours for those that are properly baked, will indicate at once which method is preferable for the nursery. The desired temperature for cooking starchy foods can be reached in the oven with care, and a potato of medium size should be baked in from thirty to forty-five minutes. When done in this way they may be given occasionally with dish gravy from roast beef, roast mutton, or broiled beefsteak, or with salt and cream, to a child of eighteen months; but it may be safer to wait a little while longer, according to the condition of the child. The potash in potato, which is an important salt and soluble in water, is not lost when potatoes are baked. For this reason, when mashed potatoes are desired for children, they should either be steamed in a steamer or a closed colander placed over

boiling water, or be boiled in the skin. When done they should be lightly beaten with a fork and a little cream and salt added. If properly cooked in this way a potato will assume a mealy or floury appearance, and boiled potatoes should never be used in the nursery unless done in this way.

Macaroni, etc.—Macaroni, spaghetti and vermicelli are all preparations of flour, supposed to be made from hard Italian wheat, rich in gluten. Sir Henry Thompson observes of macaroni: "It is certainly to be lamented that so little use is made in our country of Italian pastes. Macaroni in all its forms is, in fact, an aliment of very high nutritious power, being formed chiefly of gluten, the most valuable part of the wheat, from which the starch has been removed. Weight for weight, it may be regarded as not less valuable for flesh-forming purposes in the animal economy than beef or mutton. Most people can digest it more easily and rapidly than meat; it offers, therefore, an admirable substitute for meat, particularly for lunch or mid-day meals." It must be selected with care, as there are many imitations in market which contain little gluten and much starch. To prepare it for the nursery, add about ten sticks of macaroni, broken into small pieces, to a quart of boiling salted water, dropping the pieces in one by one, that the water may continue boiling. Cook gently for twenty minutes, drain thoroughly and put it back in the saucepan, adding cream or a pint of milk thickened with a teaspoonful of flour rubbed smooth in a teaspoonful of butter, and allow it to simmer for another twenty minutes. Enough milk or cream should be used to cover the macaroni well when done with the cream sauce which results from careful simmering. Spaghetti may be prepared in the same way. Vermicelli is to be used as an addition to broths, but there is no reason why it should not be prepared as directed above.

If any of the vegetables mentioned disagree, on careful observation, with children possessing certain inherent peculiarities, their use should be postponed until after the second teeth have appeared. It is always advisable to watch for indications of habitual non-assimilation of certain foods, and, if necessary, not to use them until later years, when a more liberal dietary in many respects may be allowed.

Salads dressed with olive oil may be given after second dentition; the oil is a valuable nutrient, and the fresh green supplies an important part of a growing girl's or boy's requirements.

THE PLACE OF FRUIT IN THE NURSERY DIET

The use of fruits in nursery dietetics is of the greatest importance. They contain a very large proportion of water, but their chief food-value lies in the sugar, acids and salts that they contain, which cool the blood, aid the digestion, tend to promote intestinal action and correct tendencies to constipation. They are especially adapted to the nourishment of the brain and nervous system.

The selection and use of fruit demand careful consideration, and it must be used moderately at all times, as any excess tends to intestinal irritation. The seeds, pulp and cellular parts are usually the disturbing elements. The juices are, as a rule, perfectly wholesome and may be used some time before solid fruits may be given. The *Lancet* says: "Nothing is more essential to learning than frequent reiteration. . . . It might be supposed that by this time every one understood the importance of observing particular care in the selection of a summer dietary, especially as regards fruit. Hardly any question of domestic management is either

more vital or more elementary, yet error continually arises in this connection in the simplest way. A few days ago a child died soon after eating strawberries. Why? Because the fruit had been purchased *two days previously*, and, as was only to be expected, when eaten was in a state of decay. It is impossible to resist the impression that neglect had something to do with the sad result in this instance. Luscious fruits are particularly liable to putrefactive change, and such thrifty processes as exposure to a cold and dry air, spreading out, and the like, suffice only to postpone decay for a brief period. We can not do better than point to the incident above mentioned in order to remind the vender and purchaser alike that freshness is the only certain guarantee of safety when any succulent fruit forms an article of diet. We have not forgotten that another hardly less serious danger of the season awaits those who indulge in fruit when it is under-ripe. In this case taste as well as judgment commonly interposes a caution the importance of which can hardly be exaggerated. Yet here, also, the consequences of neglect have too often been sadly apparent."

As may be inferred from the above remarks, it is of the first importance that fruits be fresh, ripe and in good condition. They must also be delicately handled, as their greatest value lies in the juice they contain, which may readily be lost in whole or in part by careless handling. A child two and a half years old may usually be allowed the juice and pulp of a sweet ripe orange; no amount of sugar will correct the acidity of a sour orange, in a wholesome way, for nursery use. The juice of a sweet orange is indicated in feverish conditions and it may be freely used under almost all circumstances after a mixed dietary has begun. It is well to remember, in giving all fresh fruits, that the best time is to give them for breakfast or

for early dinner, as all fruit allowable for supper should be cooked. It should also be remembered that when fat and meat form a considerable portion of the menu, fresh fruit should be carefully given; therefore, in winter menus, when fat and meat are necessary for dinner, it is advisable to use fresh fruit for breakfast and puddings, etc.; for dinner, desserts. In summer, when meat and fat should be sparingly used, fresh fruit may be given for both breakfast and dinner; never for supper at any season of the year. Baked apples may be used frequently after a child is two years old. Doctor Rotch says a baked apple may be given at the evening meal, when a child is fourteen to fifteen months old; or for variety, the apple can be made into a simple sauce, never, however, having the sauce made with much sugar. The pulp of a raw apple, scraped with a silver spoon or knife, may sometimes be given for breakfast. Apples, cooked or raw, are particularly useful with a concentrated diet (beef broth, eggs, etc.), and if properly selected they are easily digested. As a rule a child who is delicate and has little appetite for breakfast will rarely turn away from a juicy baked apple, daintily served. For eating raw, a highly-colored apple, with rosy sugary flesh, is most digestible, if care be taken to see that it is properly masticated. Any really ripe apple may be used with safety if peeled and scraped. The juices of almost any fruit may be used at two and a half years, either as a drink or with the varieties of desserts or farinaceous foods allowed. Cherries, grapes, raspberries, strawberries, blackberries, pineapples and similar juicy fruits are suitable for this purpose. These juices may be prepared in the following manner, and possess the advantage of being ready for use at all seasons of the year. Express the clear juice of the fruit in the usual way and boil it with a small quantity of sugar, about a quarter of a

pound to a pint of juice. Boil fifteen minutes, stirring constantly, and skim as long as any scum arises. Then strain, put in bottles or jars and seal.

After a child is two and a half years old, stewed fruits should be freely used, especially apples, prunes, figs and peaches. For many children all ripe fruits are laxative and for this reason alone, if for no other, they are valuable aids in regulating a diet that is frequently much too concentrated or too starchy, keeping a child dull, sluggish and unhappy. Oranges are frequently used in this corrective way. Doctor Tweddell * says the juice of a fresh sweet orange may be given at six months of age, beginning with two teaspoonfuls one hour before the second feeding of the day, and increasing the amount to one or two ounces by the end of the year. It must always be strained. Some children can not take orange juice; in that case the juice of boiled prunes or strained apple sauce may be substituted.

The following fruits may be used after three years and a half, according to the child's power of digestion:

Cranberries, which rank as an antiscorbutic and an astringent, may be given in the form of a sauce or a drink. They should be strained when used in the nursery. To make a cooling, refreshing drink, boil the berries in water double the measure of the berries. Boil until the juice has been thoroughly extracted, sweeten with one-half pound of sugar to a quart of juice, boil ten minutes, bottle and seal while hot. This must be largely diluted.

Strawberries are wholesome for nearly every one when fresh and ripe, if taken in moderation, but results must be carefully watched for individual idiosyncrasies. Some physicians recommend their use as early as two years and a half, but it is better to err on the safe side, and "make haste slowly."

Dates and Figs are highly nutritious, much more so

* *How to Take Care of the Baby.*

than many other fruits, and in large quantities they are usually aperient. Children generally like dates when seeded, pressed flat and served with a slice of buttered brown bread or saltine crackers.

Pears, when ripe, may be used carefully, but they are not to be preferred to other fruit for the first five years, as, in the opinion of many, they require a long time for digestion, and, being decidedly laxative, if not properly digested they are likely to give trouble.

Peaches may be used from eighteen months up, when fresh and ripe and prepared carefully,—that is, pared immediately before eating. Doctor Rotch says a ripe peach, when in season, may often be given with benefit during the second year, especially if the infant is inclined to be constipated. They should always be pared for nursery use, as should every skin fruit, like the pear, apple, plum, etc. Diphtheria has been known to be carried by unwashed apples; and, even if no contagion exists, there is something decidedly unpleasant in the thought of eating fruit that has been handled constantly by unwashed hands from the time of picking, through transit, and until it reaches the table. Even dates and figs suffer no appreciable loss by being quickly but carefully washed and dried over a range or in the sun, and they are infinitely more appetizing when treated in this way. Sterilized or boiled water should always be used for this purpose.

Grapes occupy an intermediary position and may be used medicinally in many cases, under the guidance, however, of a physician. They are very rich in sugar, both in the fresh and in the dried form (raisins), and are easily digested when fully ripe. They are particularly useful in convalescence and in anemic and catarrhal conditions. The skins and seeds of all grapes must be rejected; the pulp, also, of many of them, chiefly on account of the seeds they contain. The pulp of Tokay, Malaga

and similar grapes may be eaten freely. Grape juice is especially refreshing and is liked by all children. It may be given among the first fruit juices allowed. A pleasant way to prepare grape juice for young children is to use a fruit-press (a press that is used for mashing potatoes will answer very well), putting pulp, skin and all into it and expressing the juice, which may be given clear or diluted for dessert, or as a cooling drink in hot weather, whenever and in whatever quantity desired. In this way some of the valuable ingredients of fruit may be added to a child's dietary long before the use of solid fruit is allowed. The use of these fruit juices corresponds, in the order of the menus indicated, to the use of the vegetable waters spoken of when making meat broths, which may also be used before even vegetable purées are allowed.

Blackberries are an astringent fruit and they must be perfectly ripe to be eaten in their natural state. The usual blackberry in market is unripe, although black, and is unfit for food unless cooked. The berries are not sweet when in this condition, and if eaten they will easily cause a period of indigestion. A very good jelly may be made by using gelatin soaked in blackberry juice instead of cold water, in the proportion of a box of gelatin to a pint of juice, adding one cup of sugar and three cups of boiling water. Boil, strain, cool and keep in covered jars or tumblers. This method, with the variations called for by the different fruits in the way of sugar, flavoring, etc., will be found an excellent one for the use of all fruits. Cherries, pineapples, prunes, oranges, apples, grapes, raspberries, currants and rhubarb are all to be recommended in this form. A further variation may be made at any time by adding the whites of eggs in proportion to the quantity made (as, for instance, two to four whites to one box of gelatin), beating the whites stiff and whipping them into the fruit jelly a little at a

time before it is quite firm. This may be eaten plain or with sweet cream.

Corn starch and blanc-mange may be varied by cooking them with fruit juices instead of milk, to be served with milk or cream.

The white of egg beaten very stiff and slightly sweetened, or whipped cream, either of them to be used with the addition of fruit or fruit jelly, is a dessert that is simple, easily made, and one that not only pleases the eye and palate, but possesses desirable nutriment as well.

While the selection of a fruit or fruit dessert may seem the least important portion of the nursery menu, it does not occupy this position, as, if used at all, it must be considered in connection with the idea carried out in selecting the entire menu for the meal. We must always remember the rules to be followed in health in regard to proportionate quantities of food containing albuminoids, starches, fats and sugars,—one supplementing the other. Under other conditions than those of health an entirely different plan must be followed, as special conditions call for specially directed nutrients, and at such times fruits and vegetables are not desirable, unless recommended by some one of unquestionable authority,—*i.e.*, the family physician.

DESSERTS

Brown Betty.—Alternate layers of sliced apples and dry bread-crumbs, just enough crumbs to cover the apples. Add bits of butter, sugar and ground cinnamon. Do this until the pudding-dish is full, having bread on the top. Pour half a cup of molasses or milk and half a cup of water over the whole, set the dish in a pan of boiling water and bake in a moderately hot oven for three-quarters of an hour. Serve with cream.

Fruit Tapioca Pudding.—Boil one-half cupful of pearl tapioca in one quart of boiling water until soft and transparent. Add one-half teaspoonful of salt and one-half cupful of sugar; pare and core three tart apples, or three pears and fill the centers with sugar and a little cinnamon or cloves; put in a baking-dish, pour the tapioca around them and bake until the fruit is tender. Serve hot or cold, with cream.

Strawberry Custard.—Make a boiled custard with the yolks of five eggs, one quart of milk, one-half cupful of sugar and one-half teaspoonful of vanilla. Crush and strain one pint of berries and mix with them one-half cupful of powdered sugar. Gradually beat this into the well-beaten whites of four eggs. If the fruit is very acid, more sugar will be required. Serve the custard in small glass cups and pile the strawberry-float on top.

Raspberry Blanc-mange.—Any blanc-mange may be made with fruit juice according to the following directions:

Into a pint of boiling fresh milk stir two tablespoonfuls of corn starch made smooth in a little cold milk. While thickening, add two tablespoonfuls of sugar and one-half cupful of raspberry juice and turn into a double boiler, where it should be steamed for half an hour. Place in molds (tiny cups are desirable for nursery use), cool and serve with sweet cream.

Cherry Jelly.—Use one pint of cherry juice instead of cold water, to soak the required amount of gelatin; add the juice of two lemons, two cups of sugar and three cups of boiling water. Some may prefer a trifle more sugar. Sweeten to taste and seal in jars or tumblers.

Rhubarb and Orange Jam.—Allow one quart of finely cut rhubarb, six Valencia oranges and the same weight of sugar as of fruit. Peel the oranges, remove as much of the white pith as possible, divide them and take out the pips. Put the pulp, half the rinds and the

rhubarb, peeled and cut up, into the scales, weigh and allow the same quantity of sugar as of fruit. Then put all into the preserving kettle, bring to a boil, skim and simmer for an hour, or until done.

Dates and Cream.—Remove the stones from dates then cut them rather fine and put them in a glass dish; cover them with whipped cream and stand aside in a cold place for thirty minutes before serving. You will have a dainty and wholesome dessert that can be eaten by the children of the family.

Dates and figs may be washed, soaked overnight and stewed slowly, adding a little lemon juice if liked.

Jellied Apples.—Pare and slice thin a dozen or more tart apples. Place in a pudding-dish alternate layers of apple and brown sugar and a sprinkling of cinnamon, and when the dish has been filled in this way, pour over it one-half cup of water. Lay a buttered plate over the top and cook slowly for three hours. Set in a cold place and when ready turn out into a glass dish. Whip half a pint of cream and pile it up around the jellied apple.

Apple Snow. (Adapted from Davies.)—Reduce two apples to a pulp, press this through a sieve, sweeten and flavor. Have ready the whites of two eggs, beaten stiff. Beat the apple-pulp to a froth and whisk the two together until they look like stiff snow.

Rhubarb Jelly.—To be made in May. Wash the stalks and cut without peeling; cover with cold water and simmer until soft. Then proceed in the usual manner, letting the juice drip through a jelly bag; do not squeeze. Use one pound of sugar (granulated) to a pint of juice and boil fifteen minutes. Heat the sugar in the oven, stirring frequently; add it at the end of the fifteen minutes' boiling and stir until it comes to a boil. Strain through cheese-cloth, pour into jelly-tumblers and cover with melted paraffin, a second layer after first has cooled.

Rhubarb Mold. (Davies.)—One quart of red rhu-

barb cut in pieces, put into a covered saucepan. Let it boil until it is a pulp; soak half an ounce of gelatin in cold water, pour just enough boiling water over it to dissolve it; add to it the rhubarb, with sugar to sweeten; let it boil fifteen minutes; add a few drops of essence of lemon. Butter a mold and pour in the rhubarb. Next dip the mold in hot water and turn out on a glass dish.

Rhubarb Jam.—Rhubarb jam is desirable for nursery use and may be made in the proportion of a pound of sugar to a pound and a quarter of rhubarb, adding a little lemon peel. Boil one hour after the sugar has dissolved.

Orange Jelly.—Dissolve three-fourths of a box of gelatin in one and one-half pints of water; add one-half pint of orange juice, sugar to sweeten and the juice of one lemon. Boil, strain and cool, and keep covered until used.

Sago Jelly.—Soak one cup of sago overnight in one pint of cold water. In the morning add one pint of boiling water. Boil in a double boiler one hour; add one teaspoonful of salt, one cup of sugar and one teaspoonful of lemon juice.

Prune Jelly.—Cover one pound of prunes with one quart of water; cook slowly. Add sugar to sweeten and one-half box of gelatin dissolved in a pint of water and boiled. Strain, cool and keep covered.

Clarified Apples.—Prepare the apples as for sauce, in even-sized pieces, and simmer until tender in boiling sugar and water, turning the pieces once, using a flat agate saucepan, from which it is easy to remove the pieces of apple without breaking them as they become tender. Cook the sirup for ten minutes after the apples have been taken out, then pour it over them, sprinkle with cinnamon and let them cool in the sirup. Orange or lemon juice may be used for flavoring.

Apple Water.—Mash two large tart apples that have

been sprinkled with sugar and baked tender and slightly brown and pour over them a pint of boiling water; let stand covered in a cool place for an hour or two, strain and use.

Irish Moss Tea.—Take a handful of Irish moss that has been washed and drained; pour cold water over it and let it simmer on the back of the stove until it is dissolved; then strain and mix with lemon juice and sugar. This is said to be excellent in rheumatic affections. If one is troubled with a dry hacking cough at night, it will often give relief if kept near the bedside and frequently sipped.

Fruit Sauce.—Mash a quart of ripe fruit; beat it, sift a cupful of sugar over it and set away; if the fruit is very sweet, less sugar will be required. About ten minutes before the sauce is needed to serve with a pudding, set it over the fire and stir constantly; when heated nearly to boiling, turn it about the base of the pudding, which has been placed in a deep platter. If the pudding boiler has a tube in the center, as it usually has, there is, of course, a hole in the center of the pudding, and this may be filled with the fruit sauce, which is, by the way, as attractive in appearance as it is delicious in taste.

Marshmallow Drops.—This is a confection greatly relished by many, healthful and unobjectionable. It can be made quite conveniently at home; if the best of materials are used and care is exercised, the product will be fully equal to any that the market affords, and it can be made at any time and in any quantity to suit the occasion. Few people have an idea of the ingredients used or of the manner of their use, but here is the whole secret: A half-pound of gum arabic is to be dissolved in a pint of water; strain the solution, to remove any specks of organic matter contained in the gum, then add one-half pound of white sugar; place the whole over a moderate fire and stir continually until the sugar is dissolved and

a honey-like consistency is reached; then add, little by little, the whites of four eggs, thoroughly beaten, and stir the mixture till it becomes thin and will no longer adhere to the finger. The marshmallow factor is added by flavoring with as much tincture of marshmallow as may be desired. The compound is then poured into a tin or earthen vessel that has been lightly covered with powdered starch; when cool, it is cut into squares, which are also dusted with the starch, and the process is completed. (*Good Housekeeping.*)

Orange Sirup.—Squeeze the juice of thin-skinned oranges through a sieve, and to every pint add one and one-half pounds of powdered sugar and the juice of one lemon. Boil the sirup fifteen minutes and skim as long as any scum arises. Strain it, bottle and seal up tight, and it will keep a long time. Added to a glass of water it makes a delicious drink for an invalid.

Lime Water.—Lime water is easily made at home for nursery use by putting a piece of unslaked lime the size of a walnut into two quarts of filtered water in an earthen vessel and stirring thoroughly; allow the mixture to settle and pour off the clear solution as required for use, replacing the water and stirring up as consumed. (Yeo.)

Rice Water.—This is a useful drink in dysentery, diarrhea, etc. Wash well one ounce of rice in cold water, then soak for three hours in a quart of water kept at a tepid heat and afterward boil slowly for an hour and strain. It may be flavored with lemon peel, cloves or other spice. (Pavey.)

Rice Milk.—Soak one ounce of rice for twelve hours, wash it quite clean and drain it. Add the soaked rice to a pint of boiling milk, with half a teaspoonful of salt and sugar. Stir well and cook slowly for one hour. Rub through a hair sieve. Sago or tapioca may be substituted for rice. (Yeo.)

Bread Jelly.—Take four ounces of bread-crumbs two or three days old, soak in cold water for six or eight hours, then squeeze all the water out of it (lactic acid and other peccant matters are thus removed). Place the pulp in fresh water and boil gently for an hour and a half to break up the granules of starch and promote its conversion into dextrine and glucose. Rub this semi-fluid gruel through a fine hair sieve; when cold it forms a smooth jelly. It will not keep long. (Yeo.)

Mulled Egg.—To be used in diseases in which the symptom of cough shows a certain degree of persistence. It is simply an emulsion of the yolk of egg in warm water, sweetened and seasoned to taste. It is prepared, as is well known, by mixing powdered sugar, the yolk of an egg and a coffeespoonful of orange-flower water, adding boiling water gradually while stirring the mixture. (Fonssagrives.)

Maple Molasses Gingerbread.—One cupful of boiling water, a piece of butter the size of an egg, one cupful of maple molasses, one-half teaspoonful of soda, one-half teaspoonful of ginger, two cupfuls of flour. Common molasses may be substituted for the maple molasses, but the flavor will not be the same. (*How to Feed Children.*)

A Wholesome Sponge-Cake.—First sift the flour and sugar. Whisk the whites of the eggs stiff. Beat the yolks of the eggs very light in a large bowl, then stir in very gradually the sugar and a tablespoonful of milk; add the whites, blending all well before gently stirring in the flour and a heaping teaspoonful of baking-powder. Bake in a well-buttered mold for one hour in a moderately quick oven. The proportions for a small cake are three eggs, one and a half cupfuls of flour and one cupful of pulverized sugar. The batter should pour easily.

Rice Pudding with Eggs.—As eggs should be cooked lightly to be digestible, they should not be added to the farinaceous or milk puddings when first mixing, as is the

usual custom. For rice pudding steam the rice tender in milk, using four teaspoonfuls of rice to a pint of milk; allow it to cool for a few minutes before stirring in two well-beaten eggs, which should not curdle, but should be partly cooked by the hot rice. Sweeten to taste, and add vanilla, lemon or any flavor desired. Grated nutmeg is very nice. Brown lightly and very quickly in a very hot oven. The above may be varied by pressing the rice through a purée sieve when hot. Add the eggs and flavoring, omit browning, and steam the whole mixture for only a few minutes in a double boiler. The yolks also may be omitted if a white pudding is desired, using four whites in place of two whole eggs. This need not be steamed after mixing if the whites have been beaten stiff.

Rice Pudding without Eggs.—Put two tablespoonfuls of rice into two cupfuls of sweetened and flavored milk, and set it in a moderately hot oven. Stir every fifteen minutes at first and every half-hour while the top forms. Any good cook understands the process, which, if carefully followed for two hours, produces a creamy, slightly brown pudding that is invariably relished by children. A few raisins may sometimes be added for children over five years old.

Snow Pudding. (Burnet.)—Put into half a pint of cold water half a package of gelatin; let it stand one hour; then add one pint of boiling water, half a pound of sugar and the juice of two lemons. Stir and strain, and let it stand, covered, in a cool place all night. Beat the whites of two eggs very stiff and then beat them well into the mixture. Pour into a mold.

Bread Pudding.—Soak one pint of fine bread-crumbs in a pint of milk until soft, add three tablespoonfuls of cocoa dissolved in a little water or a dessertspoonful of vanilla for flavoring, three well-beaten eggs, a cupful of granulated sugar and another pint of milk. Either plain or whipped cream is very good with this pudding.

Kumiss.—With a little attention to some important details, kumiss may be readily made by any one, the sole ingredients requisite being milk, sugar and yeast. A clean quart bottle is filled three-fourths full of perfectly fresh milk and to this is added a tablespoonful of fresh brewer's yeast, or one-fourth of a cake of compressed yeast, and a tablespoonful of white sugar. The bottle is thoroughly shaken and then filled with milk to within two or three inches of the top and again shaken. It is then tightly corked with a cork that has been softened by soaking in hot water, and for this purpose a corking machine should be employed. When the cork is driven home it is properly tied down. The bottles are now placed in an upright position in a cold place, at or near the temperature of fifty-two degrees Fahrenheit, where they should remain two or three days. They are then put on their sides in a cool cellar or refrigerator. Kumiss is at its best, probably, when five or six days old, but can be kept indefinitely at a temperature not exceeding fifty-two degrees Fahrenheit. (Frederick P. Henry, M. D.)

Wine Whey.—Boil a quart of milk, add to it half a pint of wine; put on the fire till it boils again, then set aside till the curd settles; pour off the whey and sweeten to taste. It is said that good country cider is as nice as the wine.

Barley Water with White of Egg.—Take a tablespoonful of coarse barley and wash well with cold water, rejecting the washings. Then boil for an hour or more with a pint and a half of clean water, in a covered vessel or saucepan. Add a pinch of salt and enough sugar to render palatable and strain. To four or six ounces of barley water thus prepared add the white of one egg.

The value of this preparation in gastro-intestinal inflammation and irritation is not easily overestimated. In the enterocolitis (inflammation of the small intestine and

the colon) of very young infants, its exclusive administration for thirty-six to forty-eight hours will often relieve when all other measures have failed. (J. Hobart Egbert, M. D.)

The following recipes have been tested, and may be used for any child in fair health, as soon as simple desserts are ordinarily allowed, which, under average conditions, is after two and a half years. For the earlier desserts, fruit juices, which should be among the first to be given, have already been discussed.

Junkets and Custards.—Junket, made with the essence of pepsin (Fairchild's), is one of the first solid desserts to be recommended, and it may be given at eighteen months, as it contains a large amount of nutriment, is easily digested and is usually very acceptable. It can be varied for later years in several ways,—by the use of beaten raw egg stirred in the milk, or by using any flavor that is not acid. A baked apple is also one of the first desserts allowed. A sound ripe apple baked properly is an easily digested delicacy, taking but an hour and a half for preparation in the stomach for assimilation. It is nourishing, a stimulant and altogether a food to be commended for nursery use, and it may be used as one of the first important changes when making additions to a child's dietary of milk and cereals. As stated elsewhere, Doctor Rotch allows it to be used from the fourteenth to the fifteenth month.

A very satisfactory way to bake an apple for nursery use is to peel and core it carefully, pour a cup of cold water over it, sprinkle lightly with sugar, cover closely and bake in a moderate oven until tender. If carefully done, it should be as juicy and soft as jelly.

Among the lighter desserts are whipped cream and soft custards. These are easily prepared and give sufficient variety until a child is three years old, when ice

cream, rice pudding, orange float, tapioca, farina and the various milk puddings may follow in their order.

The chief point to remember in the selection of desserts is that when the child has a full menu for the earlier part of the dinner—*e.g.*, meat or broth, one cereal (rice), one juicy vegetable (purée of spinach), and bread and butter—a fruit or a light dessert is called for. But when for unavoidable reasons the main part of the dinner is light, as, for instance, bread and butter and beef broth, a substantial dessert should be chosen,—*i.e.*, rice or tapioca pudding, milk jelly or cup custard, all of which contain the constituents of a varied diet, and thus supplement what would otherwise be an insufficient meal. When carrying out this idea, eggs should be added to the milk puddings, omitting them when lighter desserts are needed.

Soft or cup custards may be made white or yellow by using or omitting half of the egg. They may also be colored and flavored with fruit juices, as cherry, prune, raspberry, etc. The proportions for a white cup custard would be the whites of three eggs to a pint of milk, and one or two whole eggs for the yellow for the same quantity of milk. When using fruit juices for custards, take less milk in proportion to the quantity of juice used. Always use hot milk when adding the sugar and salt, and for a soft custard stir in a double pan or boiler until it thickens, using more milk than is called for in a recipe for cup custard. A soft custard should boil three minutes. A cup custard should be poured into cups, set in a pan of hot water, and baked twenty minutes in a hot oven.

Gelatin may be used in the nursery in a variety of ways. Dissolve one-half box in one pint of water, one-half cup of sugar, and one-quarter pint of fruit juice, using lemon and orange, currant juice and lemon, prune juice (one pound of prunes to a quart of water boiled

to a sirup), grape juice, blackberry sirup, or one made from cranberries, remembering the astringent properties of both blackberries and cranberries and the laxative quality of prunes. Boil the mixture, with whatever flavor, strain and cool on ice—covered, as gelatin readily absorbs germs, odors, etc.

Plain jelly made according to these directions, flavored with orange, vanilla or lemon, and whipped with cream before it is quite firm, is a delicate and appetizing dessert.

Whipped cream flavored with prune juice, or with a small quantity of dry cocoa, is another dainty dessert.

Grape sauce, or jelly made with gelatin, is especially refreshing to convalescents.

A simple fruit jam, made without the seeds or skins of the fruit, may be used occasionally with bread and butter for children over three years of age.

As mentioned before, these desserts can be easily made by any plain cook. The value of the suggestions lies in the variety that may be given to two seemingly conventional desserts,—custard and gelatin.

Milk puddings may be equally varied by using a little judgment, a little experimenting, and by choosing simple sweet ingredients, such as tapioca with fruit, rice with or without eggs, barley flour with orange flavoring, bread-crumbs or bread soaked in milk, with chocolate or apple and eggs added, etc.

Irish moss, dissolved and used with corn starch, made into blanc-mange, is a pleasant change. Add chocolate to the ordinary recipe for blanc-mange, and serve with sweet cream, for another variation.

Milk jelly is the only dessert mentioned that may not be generally known. It is said to be retained by the most sensitive stomach, and will nourish when almost nothing else will be tolerated.

Heat one quart of milk, then add and stir until dissolved one pound of granulated sugar; add an ounce of

gelatin dissolved and allow the mixture to boil for ten minutes. Before straining and cooling, add the juice of three lemons or any flavoring desired. Pour into cups, cover and keep in a cool place.

With the varieties suggested, and the long list of stewed fruits and fruit juices that may be used, it seems incredible that mothers will persist in feeding their little darlings with sweetmeats, doughnuts, cookies, heavy rich cakes, preserves, and canned fruits, even, as the writer has seen, going so far as to give them tea and coffee, with no consideration whatever for the delicacy of the child's digestion.

THE END

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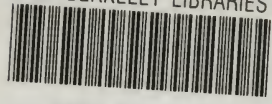
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